European Science and Technology Highlights National Science Foundation Europe-Eurasia Office 2014



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1 Europe

1.1 European Research Council Synergy Grants: 13 Exceptional Research Projects Awarded up to €15 million Each (January 2014)



The European Research Council (ERC) announced the winners of 13 Synergy Grants, who will share a total of €150 million (USD 206 million). The projects, at the crossroads of many disciplines, will receive funding of up to €15 million (USD 20.6 million) each for the coming six years. Each project brings together two to four outstanding researchers, which means that 45 scientists based in 11 countries are supported through these prestigious grants. This is the second competition for ERC

Synergy Grants, which is a pilot scheme introduced in 2011 by the ERC Scientific Council.

The selected researchers will explore a wide variety of topics in all disciplines. The projects include: creating the first ever picture of a black hole; addressing the future of Internet security; evaluating the environmental impact of the lack of phosphorous; and developing new instruments for non-invasive eye treatments.

Compared to the first Synergy Grant competition, participation in this call was more in line with the expectations of the ERC Scientific Council: just under 450 applications were submitted, compared to over 700 in 2012. The success rate rose to 3%, from last year's 1.5%.

More information available at: http://erc.europa.eu/

1.2 Science Europe Publishes its Roadmap on European Research Policy (January 2014)

The 'Science Europe Roadmap' is the result of extensive discussion and consultation on a wide range of research policy areas between more than 50 research funders and performers from



research policy areas between more than 50 research funders and performers from across Europe. "I am proud that so many organizations, operating in very different environments, were able to come together to spell out their shared strategic vision", said Amanda Crowfoot, Director of the Science Europe Office.

The Roadmap identifies nine key areas where Science Europe Member Organizations intend to engage directly, to ensure collective progress towards a stronger European research system. These areas for action contribute to four strategic objectives that Member Organizations wish to pursue by collaborating: supporting 'borderless science', improving the scientific environment, facilitating science, and communicating science.

In order to face the challenges of an increasingly competitive global research environment, Science Europe member organizations are now committing to further increasing their efforts towards an even stronger and more efficient research system in Europe; this should be one where diversity is preserved as a strength, but where the conditions under which the research is conducted are adapted so that potential obstacles or unnecessary boundaries are removed.

The Science Europe Roadmap comes at a key time for European research policy. Over the coming years the European Research Area (ERA) will remain high on the agenda of the European Union institutions and Member States. The Science Europe Roadmap will contribute to shaping the European research landscape, as well as providing a platform for concrete collaboration on areas that matter to research organizations and scientists: access to research data and to research publications, cross-border collaboration, gender and diversity issues, research careers, research infrastructures, research integrity, policy and program evaluation, and science in society.

The Roadmap is available for download at: www.scienceeurope.org/downloads

Note: Science Europe is the association of 53 Research Funding and Research Performing organizations from 27 countries, representing a combined research budget of approximately €30 billion per year. It was founded in October 2011 as a platform for collaboration between Member Organizations, both policy and activity level. More information available at: http://www.scienceeurope.org/news

1.3 European Research Council Awards 575 million Euros to 312 Mid-career Researchers (January 2014)



European Research Council

The European Research Council (ERC) has selected 312 scientists in its first Consolidator Grant competition for researchers with over 7 and up to 12 years' experience after their PhD. This new funding will enable the researchers to consolidate their own teams and to further develop their best ideas. Projects selected include: using a geochemical clock to predict volcanic eruptions, exploring the effects of Dark Matter and Dark Energy on gravitational theory, checking responsibility, liability and risk in situations where tasks are delegated to intelligent systems, and investigating the

role of genetic and environmental factors in embryo brain wiring. Total funding in this round is €575 million (USD 778 million), with an average awarded grant of €1.84 million (USD 2.5 million), up to a maximum of €2.75 million (USD 3.7 million).

The ERC calls target top researchers of any nationality based in, or willing to move to, Europe. In this call, grants are awarded to researchers of 33 different nationalities, hosted in institutions located in 21 different countries throughout Europe, with 9 of them hosting five grantees or more. In terms of host institutions, the UK (62 grants), Germany (43) and France (42) are in the lead. There are also researchers hosted at institutions in the Netherlands, Switzerland, Spain, Italy, Israel, Belgium, Sweden, Austria, Denmark, Finland, Portugal, Greece, Hungary, Ireland, Turkey, Cyprus, the Czech Republic and Norway. In terms of researchers' nationality Germans (48 grants) and Italians (46) are at the top, followed by French (33), British (31) and Dutch (27) researchers.

Over 3600 proposals were submitted to this first separate ERC Consolidator Grant competition. The average age of the selected researchers is 39.

Full article available at: http://europa.eu/rapid/press-release_IP-14-16_en.htm?locale=en

1.4 European Commission Awards 50 million Euros for New Research Projects on Water Innovation (January 2014)



Biotechnology to treat heavy metal pollution in waste water; new 'Aquaponic' systems combining aquaculture and hydroponics in agricultural production; smarter management of water distribution networks. These are just three of 11 new projects approved for EU research funding, aiming to promote innovative solutions for water-related challenges. The projects involve 179 partners from research organizations and private companies (including more than 70 Small and Medium Enterprises-SMEs), across 19 European countries.

The €50 million (USD 68 million) in funding comes from the 2013 'Environment' call of the EU's Seventh Framework Program for Research and Technological Development (FP7). This brings total funding for water-related projects under FP7 (2007 to 2013) to more than €1 billion (USD 1.35 billion).

Securing safe and plentiful water supplies will remain a key objective under Horizon 2020, the new EU research and innovation funding program launched on January 1, 2014. Under the first Horizon 2020 calls for projects, published 11 December 2013, around €165 million (USD 223 million) is expected to be provided to projects in the focus area 'Water'.

Full article available at: http://europa.eu/rapid/press-release IP-14-39 en.htm?locale=en



1.5 Improving Collaboration Among Science Educators in Europe (February 2014)

A career in the fields of science, technology, engineering or mathematics (STEM) can offer exciting opportunities and challenges. However young Europeans are showing a reluctance to get on board with science: in fact, we are currently seeing a

decline of around 10% in terms of numbers of STEM graduates. Our young people are missing out on employment opportunities, and the EU is missing out on talented future scientists.

SCIENTIX, a space for collaboration among science educators, is seeking ways to tackle this growing problem by building a European community for science and maths education - a community which supports the primary and secondary science teachers who are influencing our reluctant young science students on a daily basis.

Since 2009, this project has been promoting and supporting a Europe-wide collaboration among STEM educators by facilitating regular dissemination and sharing of know-how and best practices in science education. Over its first six years, it gathered 200 publicly-funded science education projects, and 1,000 STEM teaching and learning materials. From plant science projects in primary schools to ICT initiatives for innovative science teachers, the database of projects offers a huge range of activities for European science educators to get involved in or inspired by.

Now in its sixth year, SCIENTIX is building on this impressive bank of online knowledge and expanding to the national level. It is establishing a network of National Contact Points (NCPs) covering 30 European countries with the aim of connecting with STEM education professionals, organizing national workshops, webinars and networking events.

Full article available at: http://cordis.europa.eu/news/rcn/36438_en.html More information available at: http://www.SCIENTIX.eu

1.6 First European Research Area Chairs to Boost Research Excellence in 11 Regions (February 2014)



Eleven universities and technical institutes in less developed regions in Europe are to receive up to €2.4 million (USD 3.3 million) each in EU funding to boost their research capacity though the appointment of the first ever "ERA Chairs", Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science, announced. The initiative aims to bridge Europe's innovation divide by attracting top academics to organizations so that they can compete with centers of excellence

elsewhere in the European Research Area (ERA). The first pilot call was open to research organizations located in less-developed EU regions or similar areas in countries associated to the EU's seventh research framework program (FP7). A total of 111 proposals were submitted for evaluation, largely exceeding expectations. Nearly all Member States with eligible regions were represented. Once recruited, the ERA Chairs and their teams will undertake research in a wide spectrum of scientific fields, such as aquaculture, environmental chemistry, veterinary medicine, human computer interactions and low carbon emission in cities. Around 15 more ERA Chairs are expected to be announced next year following the first Horizon 2020 call published in December 2014.

The selected institutions have to award ERA Chairs to outstanding academics who have the capacity to raise standards and attract more high level staff as well as money from other sources, such as EU research funding or regional funds. The positions must be published and respect ERA guidelines (gender balance, fairness, transparency, etc.). ERA Chair holders can come from anywhere in the world. Under Horizon 2020, ERA Chairs will be funded as a core scheme under the actions on "Spreading excellence and widening participation".

Full article available at: http://europa.eu/rapid/press-release IP-14-125 en.htm?locale=en

1.7 European Research Council Funds 67 Innovative Projects Bridging the Gap to the Market (February 2014)



The European Research Council (ERC) has announced the winners of the latest competition for its top-up funding, 'Proof of Concept'. A total of 67 researchers, who already hold ERC grants, have received up to €150,000 each to bring their pioneering 'blue sky' research closer to the market. The projects cover everything from an exploration of the molecular foundations of psychiatric disorders to

technological innovations that could help rescue skiers caught in avalanches or measure extreme waves.

Full press release available at: http://erc.europa.eu/

1.8 What is New in the EU Erasmus+ Program for Education (February 2014)

Erasmus+, the new European Union's program for education, entered into force on 1
January 2014. It covers the different education sectors ranging from school to adult
education as well as youth non-formal learning. Its budget of €14.7 billion (US\$20 billion) plus €1.68
billion for international actions in the area of higher education – referring to actions involving individuals
and institutions from non-European Union countries – represents a rise of over 40% compared with the
previous programs. Almost half of it will be devoted to higher education and will allow for significantly
increased opportunities for students, academics, higher education institutions, enterprises and other
academic and non-academic players. A few figures show the magnitude of the change:

- Erasmus+ will allow two million students to study and train abroad in the next seven years, compared to a total of three million students in the previous 26 years.
- Around 150 'knowledge alliances', bringing together higher education institutions and enterprises with a view to fostering innovation, will be established, thus scaling up the current pilot project that funded a limited number per year in 2011-13.
- More than 25,000 students will receive full scholarships for high-level joint masters degrees as compared to 16,000 in the past 10 years.
- 200,000 masters students will benefit from the new loan guarantee scheme.
- 1,000 projects involving universities from other parts of the world will be funded to reinforce their capacities.

Erasmus+ will be structured around three key actions:

- Learning mobility of individuals students, doctoral candidates, lecturers and staff: around 70% of the budget.
- Cooperation for innovation and good practices, in the form of partnerships between higher education institutions and-or businesses and other actors, and capacity building actions with institutions from non-industrialized countries: around 20% of the budget.
- Support for policy reform, aimed inter alia at supporting policy-making by EU member states through the 'open method of coordination', developing EU transparency and recognition tools or establishing policy dialogue with non EU countries: around 5% of the budget.

Full article available at: http://www.universityworldnews.com/article.php?story=2014021015512327

1.9 100 Billion Euros for Innovation to be Provided by the European Union's Regional Funds (March 2014)



With the latest major reform of the European Union regional policy under the new 2014-2020 budget for regional development, some €100 billion (USD 135 Billion) will be spent on research and innovation, information and communications technology, SMEs and the low-carbon economy. This novelty in the European budget will allow for better synergies between Horizon 2020, the EU's research flagship program, and the European regional development fund, one of the major components of the EU budget. The aim is to address the research divide and stop the brain drain from Europe's Eastern and Southern countries. This "can only be

tackled by innovation" said Johannes Hahn, EU Commissioner for regional and Urban Policy. The funding is expected to funnel through 'smart specialization strategies' that use local know-how to identify and build on a region's existing strengths.

Innovation is already a key part of the €80 billion Horizon 2020 R&D program, but Hahn said while this is crucial, more is needed. "Horizon 2020 is driven by excellence criteria, and that's correct. But there are no geographic criteria to spread innovation. That's why we need regional policy to spread innovation," he said. In addition, the Commission aims to make better use of the synergies between Horizon 2020 and regional development funds. For example, Hahn said, structural funds could be used "to improve the attractiveness" of universities by investing in new equipment and infrastructure and higher salaries to attract outstanding researchers.

Full article available at: http://www.sciencebusiness.net/news/76442/EU-Regional-Development-Fund-to-invest-%E2%82%AC100B-in-innovation

1.10 New Transatlantic Platform in Social Sciences and Humanities Launched (March 2014)

The Trans-Atlantic Platform in Social Sciences and Humanities Research (T-AP), a partnership among 15 research funding agencies from Europe and the Americas was launched in Amsterdam on March 5, 2014. The Platform seeks to enhance trans-

Atlantic research collaboration in key areas of mutual interest and engagement that address 21st century societal challenges involving social sciences and the humanities.

The Trans-Atlantic Platform includes partners from Brazil, Mexico, the United States, Canada and Europe:

- São Paulo Research Foundation (FAPESP) (Brazil)
- Social Sciences and Humanities Research Council (SSHRC) (Canada)
- Deutsches Zentrum f
 ür Luft- und Raumfahrt (DLR) (Germany)
- Academy of Finland (AKA)
- International Social Science Council (ISSC) (France)
- The French National Research Agency (ANR) (France)
- Consejo Nacional de Ciencia y Tecnología (CONACYT) (Mexico)
- Netherlands Organisation for Scientific Research—Humanities (NWO—Humanities)
- Netherlands Organisation for Scientific Research—Social Sciences (NWO—Social Sciences)
- Fundação para a Ciência e a Tecnologia (FCT) (Portugal)
- Arts & Humanities Research Council (AHRC) (United Kingdom)
- The Economic and Social Research Council (ESRC) (United Kingdom)

The Platform's associated partners include:

- National Endowment for the Humanities (NEH) (United States of America)
- National Science Foundation (NSF) (United States of America)
- Deutsche Forschungsgemeinschaft (DFG) (Germany)

More information available at: http://www.transatlanticplatform.com/voorpagina

1.11 European Institute of Technology Supports Climate Innovation Network with USD 88 million (March 2014)

This year, a record sum of 63.5 million Euros (USD 88 million) is allocated to the Climate-Knowledge and Innovation Community (KIC) to foster entrepreneurship that leads to reducing greenhouse-gas emissions. This is the essence of the grant agreement signed by the European Institute for Technology and the Climate-KIC's CEO Mary Ritter of Imperial College in London recently. The funding is provided by the European Union and aims at escalating activities in helping Europe lead the world in commercializing climate change technologies.

The Climate-KIC is complemented by two other KICs: InnoEnergy and the Information and Communication Technology Labs. "The fact that Climate-KIC was granted the highest budget highlights how competitive our community is," says John Schellnhuber, chair of the board of Climate-KIC and director of the Potsdam Institute for Climate Impact Research (PIK). "To mitigate dangerous climate change, technology is key - and we're confident that Climate-KIC is helping to bring about an industrial revolution towards sustainability." Further funding later this year might raise the sum which is given to Climate-KIC to over 70 million Euros (USD 97 million).

Full article available at: http://live.rig2013.aperto.de/default/dachportal/en/Research-Landscape/News/2014/03/2014-03-12-climate-kic-wins-60--million-grant.html

1.12 US and European Brain Mapping Projects to Join Forces (April 2014)

It seems a natural pairing, almost like the hemispheres of a human brain: two controversial and ambitious projects that seek to decipher the body's control center



are poised to join forces. The European Union's €1-billion (US\$1.3-billion) Human Brain Project (HBP) and the United States' \$1-billion Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative will launch a collaboration later this year, according to government officials involved in both projects. Representative Chaka Fattah (Democrat, Pennslyvania) hinted at the plan in a speech on 12 March. The brain, he says, "is something that has defied understanding. You can't imagine a more important scientific cooperation", says Fattah, the highest-ranking Democratic member of a House of Representatives panel that oversees funding for several US science agencies. Details about how closely the US and European programmes will coordinate are still nebulous, but US government officials say that the effort will include all of the BRAIN Initiative's government partners — the US National Institutes of Health (NIH), the National Science Foundation and Defense Advanced Research Projects Agency. Henry Markram, a neuroscientist at the Swiss Federal Institute of Technology in Lausanne (EPFL), who directs the HBP, says that Israel's brain initiative will also be involved.

Some researchers working on BRAIN and HBP have already begun to coordinate their research informally. The Allen Institute for Brain Research in Seattle, Washington — a BRAIN Initiative partner — has published papers on neural simulations it produced in collaboration with the HBP. Miyoung Chun, executive vice-president of science programmes at the Kavli Foundation in Oxnard, California, says that all of the partners in the US brain project — of which the Kavli Foundation is one — are aware of how challenging the collaboration with the HBP will be, even for seemingly mundane tasks such as processing and sharing large amounts of data. "It's not even easy to share data within a lab," Chun says. "Imagine if you want to share it with everybody."

Full article available at: http://www.nature.com/news/brain-mapping-projects-to-join-forces-1.14871

1.13 New European Commission Study Identifies Europe's Top Information and Communication Technology Hubs (April 2014)



Wondering what makes an Information and Communication Technologies (ICT) hotspot? Take a look at Munich, London, Paris or smaller cities such as Darmstadt identified in a new EU Atlas of ICT hotspots. This atlas shows where digital technologies thrive and examines the factors contributing to this success. Most of Europe's ICT activity takes place in 34 regions across 12 countries. Key ingredients to success included access to top Universities and research centers and funding opportunities such as venture capital.

The study also underlines the importance of smaller regions. For example, Darmstadt -a city of 150.000 people—building on its research & innovative output and on its active business community, ranks number seven at EU's top 10 ICT Poles of excellence. Other small-sized regions showing strong performance are Leuven, Karlsruhe or Cambridge.

A region's ICT excellence is linked to research and development activities, to the ability to take knowledge to market (innovation) and to building an intense business activity around this innovation. It seems that ICT thriving regions:

- are mostly long standing industrial areas;
- have high-standard educational institutions and other key innovation players;
- have long-term policies on research and innovation;
- have enjoyed historical opportunities (such as being the political national capitals);
- tend to cluster together (half of the 34 Poles of excellence are neighbouring regions).

This effect is also observed in places like the Silicon Valley (USA), Bangalore (India) or Changzhou (China).

The top 10 performing regions according to the EIPE Composite Indicator

- 1. München, Kreisfreie Stadt, Germany
- 2. Inner London East, United Kingdom
- 3. Paris, France
- 4. Karlsruhe, Stadtkreis, Germany

- 5. Cambridgeshire CC, united Kingdom
- 6. Stockholms lan, Sweden
- 7. Darmstadt, Kreisfreie Stadt, Germany,
- 8. Uusimaa, Finland
- 9. Zuidoost-Noord-Brabant, the Netherlands
- 10. Groot-Amsterdam, the Netherlands

More information available at: http://europa.eu/rapid/press-release_IP-14-435_en.htm

1.14 The European Commission Publishes the 2013 Joint Research Center Annual Report (April 2014)



The Annual Report provides an overview of the Joint Research Center, the European Commission's in-house science service, main activities, accomplishments and resources in 2013, highlighting its scientific and technical support to several EU key priorities: the economic and monetary union; the single market, growth, jobs and innovation; a low-carbon economy and resource efficiency; agriculture and global food security; public health and (nuclear) safety and security. A special chapter is

also dedicated to the JRC's work in the field of standardisation, including the most significant examples.

More information available at:

http://ec.europa.eu/dgs/jrc/index.cfm?id=1410&dt code=NWS&obj id=19710&ori=RSS

1.15 EU Research on the World Stage European Commission, Cordis (May 2014)

By working in collaboration with partners from around the world, European ICT researchers are addressing global problems in medicine, agriculture, networking and beyond. EU-funded research projects are making a difference to people's lives in Europe, Africa, Asia and the Americas while at the same time ensuring that Europe stays at the forefront of the global ICT industry.

Full article available at:

http://www.alphagalileo.org/ViewItem.aspx?ItemId=141460&CultureCode=en

1.16 The crucial role of national funding agencies in the Eurostars program (05-May-2014) (May 2014)

A new publication shows just how important national funding bodies are to success of <u>Eurostars*</u>: today the only European funding program to be specifically dedicated to R&D-performing small and medium-sized enterprises (SMEs). Eurostars is a joint program between <u>EUREKA*</u> and the European Union. The new brochure, published by Eureka, the implementing body of the €1.14 (\$1.9 billion) billion program, introduces the role of national funding bodies in Eurostars operations and in terms of services offered to SMEs. National funding bodies are also involved in the definition and application of progressive milestones, such as the harmonization of national rules and the simplification of administrative procedures.

*Note: EUREKA is an intergovernmental network launched in 1985, to support market-oriented research, development and innovation projects by industry, research centers and universities across all technological sectors. It is composed of 41 members, including the European Union represented by the European Commission. Eurostars is a program that supports research-performing small and medium enterprises, which develop innovative products, processes and services, to gain competitive advantage. Eurostars does this by providing funding for transnational innovation projects; the products of which are then rapidly commercialized. The Eurostars program is publicly financed with a total budget of 1.14 billion euro and is currently supported by 33 EUREKA countries and the European Union.

Full article available at:

http://www.eurekanetwork.org/about/-/journal content/56/10137/4145793?refererPlid=10195

1.17 European Commission welcomes EU Member States' approval of multi-billion euro innovation partnerships (May 2014)

The European Commission has welcomed final adoption by European Union (EU) - member States of nine public-private and public-public research partnerships worth up to €20 billion (\$27.8 billion). The

partnerships had already been approved by the European Parliament on 15 April. Most of the investment will go to five public-private partnerships in innovative medicines, aeronautics, bio-based industries, fuel cells and electronics. The decision paves the way to launch these partnerships, with first calls for projects expected on 9th July. EU Member States are expected to formally adopt related partnerships on rail transport and air traffic management (Single European Sky Air Traffic Management Research) worth an additional €2 billion (\$2.8 billion) in the coming weeks.

Full article available at:

http://europa.eu/rapid/press-release_STATEMENT-14-149_en.htm?locale=en

1.18 JRC (Joint Research Center, the European Commission in-house science service) new website, the Science Hub, goes live (May 2014)

Discover the Science Hub – the portal bringing together scientific knowledge for Europe



The newly launched Science Hub brings together, on one single platform, all scientific knowledge produced by the European Commission's in-house science service and its research institutes across Europe. It integrates and aggregates information on the JRC's scientific activities, publications, in-house developed tools and databases, laboratories and unique research facilities. The Science Hub enhances the transparency and openness of the European Commission's in-house science service and facilitates the open access policy of our scientific research.

Discover the Science Hub – the portal bringing together scientific knowledge for Europe - ©Fotolia

Full article available at: https://ec.europa.eu/jrc/en/news/discover-science-hub

1.19 New global university ranking launched in Europe – U-Multirank (June 2014)

The latest major global university ranking, U-Multirank, was launched in Brussels earlier this month. With more than 850 higher education institutions of various types from 70 countries compares over 30 indicators – and 5,000 study programs and 60,000 students surveyed – Europe's answer to the 'big three' rankings says it is also the world's biggest. <u>U-Multirank</u> stresses that it is not a typical ranking.

It takes a user-driven, multi-dimensional approach comparing different kinds of institutions across a range of activities and grading them from A for 'very good' to E for 'weak', rather than producing a global top 100 universities based on composite scores.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140514061139715

1.20 Mobilizing Europe's Universities for Smart Specialization (June 2014)

The European Commission and the European University Association are convening a high level conference on the role of universities in smart specialization in Brussels. Smart specialization is a new innovation policy concept designed to promote the efficient and effective use of public investment in research. Its goal is to boost regional innovation in order to achieve economic growth and prosperity, by enabling regions

to focus on their strengths. The conference agenda includes four cases studies of university-regional partnerships in the development of Smart Specialization Strategies, as well as presentations on EU support by the Director Generals for Regional Policy, Research and Education

Full article available at:

http://ec.europa.eu/research/index.cfm?pg=events&eventcode=3DB045C8-E6FE-6D79-D831F9EC8964E102

1.21 Top scientists to decide who governs the European Research Council (ERC) (June 2014)

Brussels, 27 May 2014



European Commissioner for Research, Innovation and Science Máire Geoghegan-Quinn has appointed seven high-level scientists to identify the future members of the European Research Council's (ERC) governing body, the Scientific Council. This Identification Committee will propose a shortlist of candidates for the ERC Scientific Council's renewal in 2015.

Full article available at:

http://ec.europa.eu/research/index.cfm?pq=newsalert&year=2014&na=na-270514

1.22 European Research Area (ERA) Progress Reports: Crucial tools for change (June 2014)



Backed by the conclusions adopted on 21 February 2014 by the Competitiveness Council, we now have a firm basis to advance on ERA, thanks to the first ERA Progress Report, a comprehensive snapshot of EU research.

This first report is not simply an assessment of recent policy developments. It is a tool for change. For the first time, we have comparable data, validated by Member States, to substantiate our discussions and direct future policy initiatives.

Full article available at:

http://ec.europa.eu/research/era/newsletter2/foreword en.htm

1.23 European council of Ministers approves key initiatives in research collaboration (July 2014)



The last European Competitiveness Council formally took note of the launch of the €22 billion (\$29.8 billion) innovation investment package which includes the Eurostars-2 program.

The Council also welcomed the annual report of the Strategic Forum for International Scientific and Technological Cooperation (SFIC), an advisory body on the external dimension of the European Research Area (ERA). New joint initiatives are now to be launched with India, China, USA, Brazil and Russia.

Finally, the work program of the upcoming Italian Presidency of the EU in the areas of research and innovation was endorsed by European Ministers: the upcoming Presidency will pay particular attention to the development of the ERA, including its external dimension and encouraging regional partnerships.

Source:

http://www.eurekanetwork.org/about/-/journal content/56/10137/4228281?refererPlid=10195

1.24 A roadmap for the European Research Area by mid-2015 (July 2014)



Launched by the European Union in 2000, the European Research Area, or ERA, aims to remove barriers for research workers to access funding in another European country, making cross-border collaboration between innovators easier by combining national research programs into transnational research projects.

The majority of research programs in Europe are run in a local, isolated way, meaning researchers often miss out on the opportunities that international collaboration offers – sharing expertise and more easily accessing new markets for the product of their research.

The ERA is governed by a committee representing each EU Member State and the European Commission. This committee is developing an ERA roadmap to more efficiently implement the objectives set for this initiative. This roadmap should be ready mid-2015 and a first meeting this month will outline its contents.

Using national funds for international cooperation is also the raison d'être of EUREKA, the network of national innovation funding agencies in Europe. EUREKA took off 27 years ago and has so far enabled the realization of more than 5,000 trans-border research projects, mobilizing €35 billion (\$47.4 billion) in national research and private funding.

Source:

1.25 European Commission at 2014 EuroScience Open Forum (ESOF) (July 2014)



European Commission President José Manuel Barroso launched the EuroScience Open Forum 2014 (ESOF 2014), Europe's leading biennial science conference, held this year in Copenhagen. Research, Innovation and Science Commissioner Máire Geoghegan-Quinn gave a keynote speech to delegates on June 24. Other prominent speakers during the week included Robert-Jan Smits, European Commission Director-General for Research and Innovation, European Research

Council President Professor Jean-Pierre Bourguignon and Chief Scientific Advisor to President Barroso, Anne Glover.

What is ESOF?

ESOF is Europe's largest general science meeting. The biennial gathering brings together researchers, entrepreneurs, innovators, policy makers and the public from all over Europe to discuss new discoveries and debate the direction that science is taking.

Full article available at:

http://europa.eu/rapid/press-release MEMO-14-435 en.htm?locale=en

1.26 Governing body of the European Research Council to be appointed early 2015 (July 2014)



Nine top scientists will appoint 22 pairs to govern €13.1 billion (\$17.8 billion) in funding, to be dedicated to academic research in Horizon 2020.

Full article available at: http://www.eurekanetwork.org/about/-/iournal_content/56/10137/4231330?refererPlid=10195

1.27 EU Commission announces €100 million (\$133.9 million) Fast Track to Innovation and five innovation prizes (August 2014)



The European Commission today presents details of a new €100 million (\$133.9 million) "Fast Track to Innovation" (FTI) pilot action and five innovation prizes under Horizon 2020, the European Union's research and innovation program. The FTI aims to support Europe's economy by offering innovative businesses and organizations grants to give a final push to get great ideas to market. The prizes

offer a reward for technological breakthroughs of high societal relevance. The initiatives underscore the drive to support innovation in Europe as part of the first, two-year Horizon 2020 work program.

Full article available at:

https://ec.europa.eu/digital-agenda/en/news/commission-announces-%E2%82%AC100-million-fast-track-innovation-and-five-innovation-prizes

Additional information available at:

http://europa.eu/rapid/press-release_MEMO-14-492_en.htm?locale=en

1.28 EUREKA 2020, a roadmap for transnational collaboration in research funding (August 2014)



EUREKA 2020 is the EUREKA Network's strategy for the coming years. The new Strategic Roadmap adopted during the EUREKA Network's meetings in Bergen, Norway, offers a renewed vision of its mission in Europe and the world, as a platform for transnational industrial R&D&I cooperation, fostering competitiveness, growth and job creation. The new roadmap is the result of reflections and debates involving the whole EUREKA Network and provides guidelines for the future of the organization.

Full article available at:

http://www.eurekanetwork.org/about/-/journal content/56/10137/4237855?refererPlid=10195

1.29 Europe needs a research leader who will lead (August 2014)

The next research commissioner for the European Union will need the drive and confidence to clear a daunting in-tray.

Nations are now scrambling to pick and send to Brussels one commissioner each, to provide a pool of 28 from which the research head and others will be plucked. Research commissioner is not the most prestigious appointment for some of these people. But it is a crucial one for Europe's researchers, many of whom are spending rather too much time grumpily pondering career prospects — their own, and others' — in the United States or Asia.

Full article available at:

http://www.nature.com/news/europe-needs-a-research-leader-who-will-lead-1.15670

1.30 EU chief scientist should stay in the shadows (August 2014)

Anne Glover, the EU's Chief Scientific Advisor, has said that her opinions to the European Commission should remain independent from politics and therefore "not transparent" and immune from public scrutiny. The incoming Commission chief, Jean-Claude Juncker, is considering to maintain her position after Barroso leaves.

Full article available at:

http://www.euractiv.com/sections/science-policymaking/glover-eu-chief-scientist-should-stay-shadows-307768

1.31 When science meets politics: the EU's impact assessment review (August 2014)



The European Commission is reviewing its impact assessment guidelines amid accusations that science is becoming increasingly politicized and scientists manipulated by policymakers and powerful interest groups.

Photo: Shutterstock

Full article available at:

http://www.euractiv.com/sections/science-policymaking/when-science-meets-politics-eus-impact-assessment-review-307765

1.32 Educational upward mobility slowing – OECD report (September 2014)



Educational upward mobility has started to slow in the industrialized world, according to the OECD's new Education at a Glance 2014 report. The share of people with lower qualifications than their parents is rising – even though higher education pays off more than ever before – and "inequalities between tertiary-

educated adults and the rest of society are growing". The report analyzes the education systems of the 34 OECD countries as well as Argentina, Brazil, China, Colombia, India, Indonesia, Latvia, Russia, Saudi Arabia and South Africa.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140909171122896

Report available at:

http://www.oecd.org/edu/Education-at-a-Glance-2014.pdf

1.33 EuropeanPioneers: 4.5 million Euros (\$5.9 million) of EU funds for startups (September

Over the next two years, the EU funding program "EuropeanPioneers" will support 25 startups and SMEs in the European Union with a total of 4.5 million Euros (\$5.9 million). The scheme targets businesses active in the fields of Smart City Services, Social Connected TV, Pervasive Gaming, and E-Learning. The aim of the project is to boost media-sector startups and SMEs with innovative business models. The application deadline for the first round is 31st October 2014. Interested companies can apply online from 1st September at www.europeanpioneers.eu.

In the course of the 8-month program, the selected startups will receive funding of between 50,000 Euros (\$66,000) and 250,000 Euros (\$330,000) each, as well as access to the technologies of the powerful FIWARE and FI-CONTENT software platforms. The platforms provide open-source software, software as a service and cloud service infrastructures for the digital industry. These technologies have been developed by companies and research institutions in the context of the EU's "Future Internet Public Private Partnership".

Full article available at:

http://www.alphagalileo.org/ViewItem.aspx?ItemId=144816&CultureCode=en

innovation payments.

1.34 Universities warn against cuts to EU research funding (September 2014)

The European University Association, or EUA, has warned the Council of the European Union against making "considerable cuts" to proposed funding for research and innovation, including to the major framework program Horizon 2020. In a press statement last Thursday, the EUA said it understood that the Council of Minister's position - to be formally adopted in September - recommended reductions in research and

Full article available at: http://www.universityworldnews.com/article.php?story=20140829121307787

1.35 Europe: Facts on tenure track in Europe's research universities (September 2014)

Universities in three out of 10 European countries do not have an academic tenure track - France, Spain and the United Kingdom - while in seven countries three basic tenure models have been implemented since the turn of the century, according to a survey by the League of European Research Universities. LERU. The models - in Belgium, Finland, Germany, Italy, The Netherlands, Sweden and Switzerland are outlined in a paper on "Tenure and Tenure Track at LERU Universities: Models for attractive research careers in Europe" launched on Tuesday 2 September.

Full article available at:

http://www.universitvworldnews.com/article.php?storv=20140903091641340

1.36 Commission seeks views on how to make EU a better place for SMEs (September 2014)



The European Commission opened today a consultation on the needs of small and medium sized enterprises (SMEs) in Europe. The propositions received will be used to upgrade the EU's Small Business Act (SBA), a political document adopted in June 2008 compiling a list of measures designed to make life easier for small businesses. The SBA is

considered as the basis for the EU's SME policy and is therefore a key part of EU regulation and part of a wave of pro-SME regulation launched at EU level over the past years. The SBA was published shortly after the launch of the Eurostars program, a joint EU-EUREKA funding instrument for R&D-intensive small businesses. The public consultation launched this week seeks further input from all interested parties, including entrepreneurs and business organizations, to help the European Commission ensure the SBA is fit to meet future challenges.

Full article available at:

1.37 EU 'single market for research' now depends on national reforms, study finds (September 2014)



The European Research Area (ERA) partnership between Member States, research stakeholders and the Commission has made good progress in delivering ERA. The conditions for achieving an ERA, where researchers and scientific knowledge can circulate freely, are in place at the European level. Reforms must now be implemented at the Member State level to make ERA work. This is the main conclusion of the latest ERA

progress report, presented today by the European Commission. The report updates last year's overview, and presents individual country reports that give a snapshot of implementation on the ground, notably at the level of research organizations.

Full article available at: http://europa.eu/rapid/press-release_IP-14-1003_en.htm?locale=en

2 Austria

2.1 New Austrian Government Scraps Science and Research Ministry (January 2014)

The new Austrian government is integrating the country's Ministry of Science and Research into a Ministry of Economics and Family Affairs. The move has met with a storm of protest among academics and students. Like Germany, Austria went to the polls last September, and it has taken politicians in both countries two-and-a-half months to form new governments.

But whereas a conservative-social democrat coalition has taken over from the previous conservative-liberal government in Germany, Austria has seen a re-instalment of the conservative-social democrat coalition that has been in power for most of the time since 1987 – except for a six-year conservative coalition with the ultra right-wing Austrian Freedom Party that started in 2000. Higher education and research is now the responsibility of the Federal Ministry of Economics and Family Affairs. A last-ditch attempt by Heinrich Schmidinger, chair of the Conference of Universities, to urge Austria's President Heinz Fischer not to swear in a government without a minister of science and research, failed.

The student union Österreichische Hochschülerschaft organised a 'funeral march' to the ministry. To demonstrate its disapproval of the new arrangement, the Conference of Universities called on all institutions to fly black flags.

Around 9,500 students held a rally in front of the Ministry of Science and Research in Vienna, calling for its retention. The city's major higher education institutions suspended lectures to allow students to take part in the protest. There were further demonstrations in Graz, Salzburg and Klagenfurt. Another 'funeral march' was held in Innsbruck, with students wearing black.

Florian Kraushofer, chair of the student union, explained that the demonstrations were intended to show that higher education and research were not a priority of the new government and were being subordinated to business considerations. "But science follows a different logic," Kraushofer said. "Both in pure and in applied science, it has to be possible for research not to yield results. Science cannot always be profitable."

Full article available at: http://www.universityworldnews.com/article.php?story=20131218173225410

2.2 Institutional merger in the wake of the Federal elections (June 2014)

Science and innovation policies and all budgets formerly governed by the Ministry of Science and Research (BMWF) are now run under a single roof of the Ministry of Science, Research and Economy (BMWFW).

The coalition agreement signed by the new government (December 2013) foresees an important adjustment of the existing RTDI governance structures. Science and innovation policies and all budgets formerly governed by the Ministry of Science and Research (BMWF) are now run under a single roof of the Ministry of Science, Research and Economy (BMWFW). The Ministry is led by Reinhold Mitterlehner replacing the former Minister of Science and Research Töchterle.

Full article available at:

 $\underline{\text{http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/at/highlights/highlight_001}$

3 Belgium

3.1 Promising figures for R&D in Belgium (June 2014)

The latest final figures for research and development indicate that Belgium has in 2012 invested 2.24% of its GDP in R&D. This is a historical record for the country and a trend that is in line with the EU target of 3% for 2020.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/be/highlights/highlight_00 20

4 Czech Republic

4.1 Policy Statement of the new Czech government outlines plans for science, research and innovation policy (June 2014)

The new center-left Czech government formed by the Czech Social Democratic Party, the ANO 2011 Movement and the Christian Democratic Union – Czechoslovak People's Party presented policy priorities, including in science, research and innovation policy, and won confidence vote in the Chamber of Deputies of the Czech Parliament in mid-February 2014.

Full article available at:

 $\underline{\text{http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/cz/highlights/highlight_000} \underline{4}$

4.2 Czech Republic becomes EMBL's 21st member state (June 2014)



Forty years after its foundation, EMBL (European Molecular Biology Laboratory) announces its 21st member state: the Czech Republic. Building on a successful bilateral relationship, the Czech Republic's membership grants Czech scientists access to EMBL's state-of-the-art instruments, facilities and world-class training

programs.

As a member state, the Czech Republic will have voting rights on EMBL's governing body – the EMBL Council. Czech scientists will be able to access EMBL's state-of-the-art facilities and services, and the country's early career researchers will be eligible for scholarships in EMBL's highly reputed PhD and Postdoctoral programs. EMBL membership also opens the possibility of PhD degrees awarded jointly by EMBL and a Czech university. In the longer term, it raises the opportunity of establishing an EMBL partnership institute in the country.

Full article available at:

5 Denmark

5.1 Universities begin preparing for sweeping reforms (May 2014)

Danish universities are preparing for extensive changes now that the Productivity Commission and the Quality Commission have delivered their reports. Higher Education and Science Minister Sofie Carsten Nielsen told higher education officials that among other things she wants a focus on quality, new ways of teaching using new technology and more employable graduates.

Although the commissions' proposals have yet to be discussed in parliament, and the final report of the Quality Commission is not expected until autumn, universities know change is coming and pretty much what it will entail, and are positioning themselves accordingly.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140508183343728

5.2 An international partnership takes the stage at ESOF 2014 (July 2014)



The EuroTech Universities Alliance, an international partnership dedicated to producing new knowledge and translating it into action for the benefit of society, will highlight innovations in communication and education as well as technology at the Euroscience Open Forum (ESOF 2014), June 21-26 in Copenhagen, Denmark.

Full article available at:

http://www.eurekalert.org/pub_releases/2014-06/tum-aip061614.php

6 Estonia

6.1 Estonian Parliament Approves the 2014-2020 Strategy for Research, Development and Innovation (April 2014)



"Knowledge Based Estonia 2014–2020" is Estonia's third strategy on research and development and innovation, which takes into account the experiences and lessons of the previous period, recommendations of experts, tasks arising from the Constitution and other legislation, as well as future trends, the government press office said. Where the previous strategies focused primarily on developing Estonia's

capability in research and development and innovation, the new strategy aims to use the created potential for the good of Estonia's development and economic growth. In the setting of priorities the methodology of smart specialization will serve as basis. The European Union has identified as a goal reaching research and development intensity equaling 3 percent of gross domestic product (GDP) by 2020, one percent of which will be public sector spending. Arising from that also the competitiveness plan Estonia 2020 aims to achieve research and development intensity of 2 percent of GDP by 2015 and 3 percent by 2020, one percent of which is expenditures by the public sector.

The strategy identifies four key goals:

- Excellence in research;
- Increasing the socio-economic impact of R&D:
- Changing economic structure: smart specialization;
- Estonia is active in international RD&I cooperation.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/highlights/highlight_00 14

6.2 RD&I strategy for 2014-2020 (July 2014)

"Knowledge Based Estonia 2014-2020" is Estonia's third strategy on research and development and innovation. While the previous strategies focused primarily on developing Estonia's capability in research and development and innovation, the new strategy aims to use the created potential for the good of Estonia's development and economic growth. In the setting of priorities the methodology of smart specialization served as basis.

Facts sheet available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/policydocument/po

7 Finland

7.1 Tekes Becomes the Finnish Agency for Innovation (March 2014)

The President of the Republic of Finland has ratified a legislative package that contains amendments concerning Tekes, the Finnish funding agency for research, development and innovation. At the same time the President ratified legislation on a company investing in early-stage private equity funds as well as three other legal amendments connected with this. In this legislative amendment, there are two key points with respect to Tekes: a name change for Tekes as well as expansion of the operations of Tekes into early-stage investments in start-up companies. As of 1 January 2014, the official name of Tekes is the Finnish Funding Agency for Innovation.

Full article available at: http://www.tekes.fi/en/whats-going-on/news-2013/president-of-finland-ratified-amendments-to-law-concerning-tekes/

7.2 Academy of Finland's annual report 2013 out now (June 2014)

2013 was a year of exceptional importance for the Academy of Finland. The international evaluation of the Academy was completed and the Finnish Government passed a resolution to reform the system of government research institutes and research funding. Both the evaluation and the reform have profound implication for the Academy's role and position.

The Academy's funding stream in 2013 was again quite diverse. The overall volume of research funding increased slightly from the previous year to 335 million euros (\$457.9 millions). This was thanks to the Government's third supplementary budget in which the Academy was given an additional 20 million euros (\$27.3 millions) to support knowledge-based growth. The funding was allocated to facilitate research excellence and to launch new research programs, specifically the programs on Arctic research and mineral resources and substitution.

Full article available at:

http://www.aka.fi/en-GB/A/Academy-of-Finland/Media-services/Releases1/Academy-of-Finlands-annual-report-2013-out-now/

7.3 Universities will not charge fees for non-Europeans (July 2014)

The pilot project in which nine Finnish universities and 10 polytechnics charged tuition fees from some non-European masters students closes at the end of this year. But already most of the institutions have announced that they will not claim fees from students admitted this coming autumn.

During the pilot, higher education institutions could charge fees from students from outside the European Union and European Economic Area who were admitted to a university or polytechnic Masters program delivered in a foreign language. Institutions could independently determine the amount they would charge.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140613071332364

8 France

8.1 French Academy Decries Slide in Research Spending (January 2014)



The French Academy of Sciences has issued its strongest distress signal in decades to warn against the consequences of recent declines in government research spending. The statement, released last month, is labelled as a 'cry of alarm' — and its message is expressed "in the toughest language the academy has ever used since I began my research career 45 years ago", academy vice-president Bernard Meunier told Nature. The document specifically denounces a cut of 12%, or about €80 million (US\$110 million), in next year's budget for the National Research Agency (ANR). The ANR cut will hit basic-research projects particularly hard, placing labs in peril and

accelerating the 'brain drain', the academy says in its statement. The overall government research budget will lose €82 million, dropping to €7.77 billion, a 1% cut (not adjusting for inflation).

Some 85% of government subsidies to universities and research agencies are used to pay salaries, compared to only 47% in 1960, and little of the remainder is left over to finance labs' running costs once international commitments are met, Meunier says. "It is like having a fleet of police cars, but no petrol to put in them. The ANR cut is really the last straw that will break the camel's back," he adds. Higher Education and Research Minister Geneviève Fioraso dismissed the academy's fears as unfounded. Even though the ANR's 2014 budget is reduced, the funding agency will still be able to slate €600 million (US\$817 million) in projects that "represent the agency's capacity for commitment", she wrote in a letter to academy president Philippe Taquet. This accounts for a shift of €60 million from competitive project financing to lab operation costs, which rose by an average of 3% in 2013 and are being left unchanged in 2014, Fioraso added in the letter, which was seen by Nature but not made public.

Full article available at: http://www.nature.com/news/french-academy-decries-slide-in-research-spending-1.14451

8.2 Paris Beats London for Second Year Running in Student City Stakes (January 2014)



High tuition fees and cost of living have lost London the top place in the QS (Quacquarelli Symonds) Best Student Cities Index for the second year in a row, while North American cities fare less well than those in Europe, the Far East and Australia. The highest placed North American city is Boston, in eighth place after Singapore (3), Sydney (4), Melbourne and Zurich (joint 5), and Hong Kong (7). Montreal is ranked ninth and Munich tenth. The QS Best Student Cities index rates

cities with two or more globally-ranked universities based on 14 criteria in five categories: university rankings, student mix, quality of living, employer activity and affordability. Each city receives a score out of 100 in each category, adding up to an overall ranking of the world's best cities for students. Paris has 17 universities ranked by QS – one fewer than London, which has the most.

Paris' high living costs are offset by relatively low tuition costs, high quality of life and a thriving student community. Graduates from the French capital's universities are in high demand among both local and international recruiters. In contrast, while its universities perform strongly in the global league table, London is let down by the affordability rating partly because of high tuition fees in comparison with Paris, given that it is not a cheaper place to live. London is also ranked lower for quality of living than the other top five cities. It does receive the highest score in the rankings category of the index, with 18 ranked institutions, including two within the world's top 10.

London also does well for employer activity and student mix and remains one of the world's most popular student cities, offering an impressive range of world-leading educational facilities within a buzzing hub of culture, nightlife and international diversity, according to QS.

In third position, Singapore reflects the increasingly strong performance of Far East universities in many areas. The city state rises nine places since the exercise was last carried out in February 2012, reflecting its growing reputation as one of the world's greatest student cities, despite having just two ranked universities – the minimum requirement for inclusion. Singapore's improvement is exceeded by Hong

Kong – in seventh place – up 12 places since the last best student cities index. It offers relatively low daily living expenses and seven leading educational institutes, three of which rank among the top 40 universities in the world. Australia also does well, with Sydney just ahead of Melbourne. Quality of living and high scores in all categories except affordability (average tuition costs are higher than in London, although lower than in many US cities). Melbourne loses out to Sydney because of a slightly lower quality of living score, although this is still higher than either Paris or London. In addition to Paris and London, Europe is represented in the top 10 by Zurich and Munich.

Full article available at: http://www.universityworldnews.com/article.php?story=20131125120919479

8.3 French MOOCs Make Their Debut (February 2014)



In a bid for France to catch up with the global development of MOOCs – massive open online courses – and establish itself as the leading francophone provider in the field, Higher Education Minister Geneviève Fioraso announced increased investment to promote the new French system as its first courses were launched this month.

Since the France Université Numérique, or FUN, site opened last October, 88,000 students, high school pupils, employees, job seekers and retired people have registered for the French MOOCs – also known as CLOMs, cours en ligne ouverts et massifs – which are free of charge. France has been slow to join the MOOCs bandwagon, with only 3% of universities providing the courses, compared with 80% of US higher education institutions.

So far eight courses from seven higher education institutions have opened. More will start during the next few weeks and in the spring a second wave of institutions will join the FUN including leading business school HEC, the universities of Strasbourg, Paris 1 Panthéon-Sorbonne and Paris-Sud, and the Écoles normales supérieures of Cachan and Lyon, which will offer MOOCs on digital education for trainee teachers.

The three most popular MOOCs are "From manager to leader", provided by the CNAM (14,000 registrations); "Philosophy and ways of life – from Socrates to Pierre Hadot and Michel Foucault", from Paris Ouest Nanterre La Défense (nearly 6,000); and "Global space" offered by Sciences Po Paris (more than 5,000).

Fioraso announced for 2014 an additional €8 million (US\$11 million) on top of the €12 million initially budgeted to set up the MOOCs structure. She said €5 million would be devoted to professional education, and a €3 million bid for the 'CréaMOOC' project would be launched in coming months for financing equipment for campus video laboratories. She said an early assessment showed "an international interest for French MOOCs" and she hoped to increase bilateral agreements with third countries. Projects already underway included plans to internationalize the MOOCs, such as agreements to collaborate on their development with Mali, Tunisia, Haiti and Quebec, she said. Of the 88,000 registrations already made, 7% were from Africa and 5% from the Americas.

France has already signed a partnership with the Agence Universitaire de la Francophonie, or AUF, to promote and develop French-language MOOCs to link 'North' and 'South' higher education institutions to create courses together, and to propose examination and certification processes based on those of the AUF's 44 digital campuses. Fioraso said MOOCs would be introduced this year on mathematics and biology, bringing together the French Academy of Sciences and African academics; and another course, on malaria, was planned between the universities of Bamako and Marseille.

Full article available at: http://www.universityworldnews.com/article.php?story=20140116162940765

8.4 The French National Research Center and National Research Agency Join the NSF PIRE Program (March 2014)

On the occasion of the visit of the French President Francois Hollande and the Minister for research and higher education, Genevieve Fioraso, to the United States on February 10 2014, the President of the French National Research Center (CNRS) Professor Alain Fuchs has signed with the NSF Acting Director Dr. Cora Marrett a letter of Intent for CNRs

Alain Fuchs (CNRS), Geneviève Fioriaso,

to join the Partnership in International Research and Education (PIRE) program. A similar letter was signed by the National Research Agency (ANR). Launched in 2005, this program aims to support American researchers and scientists in global collaborations. It was created to "catalyze a cultural change in the United States by establishing new models for education and international collaborative research." It supports interdisciplinary projects that aim to promote adaptation to environmental social and cultural changes. Bodies or agencies of countries like Japan, Finland, South Korea and Russia are also partners.

More information available (in French) at: http://www.cnrs.fr/derci/spip.php?article227&lang=fr

9 Germany

9.1 UN Scientific Advisory Boards Meets in Berlin (February 2014)



The Scientific Advisory Board (SAB) is a new body created by Unites Nations (UN) Secretary-General Ban Ki-moon. It is composed of 26 internationally leading scientists. The SAB is tasked with providing advice to the UN Secretary-General and the Executive Heads of UN organizations on strengthening the interface between science, policy and society, particularly in areas relevant to sustainable

development. The creation of the Board was recommended in January 2012 by the Report of the UN Secretary-General's High-Level Panel on Global Sustainability.

The UN Secretary-General has announced the creation of the SAB at the inaugural meeting of the High-Level Political Forum on Sustainable Development during the 68th session of the UN General Assembly, on 24 September 2013. On the same occasion, he informed that he had requested UNESCO to host the Secretariat for the Board. The inaugural meeting of the SAB will take place in Berlin on 30 and 31 January 2014 at the invitation of the German Federal Government. The session is organized by UNESCO, in cooperation with the German Federal Foreign Office and the German Commission for UNESCO.

The board's 26 members represent a broad research agenda. They will thus bring together in a coherent manner the collective capacity of all relevant scientific fields, with due regard to social and ethical dimensions of sustainable development. In general terms, the Scientific Advisory Board will be entrusted with the following functions:

- strengthening the linkage between science and policy;
- ensuring that up-to-date and rigorous science is appropriately reflected in high-level policy discussions within the UN system;
- offering advice, in cooperation and consultation with the UN agencies concerned, on how the many organizations in the UN system with a science, technology, engineering and humanities mission in the area of sustainability can work together more effectively, avoid mission creep and overlap, and curb counter-productive competition;
- offering recommendations to the Secretary-General on priorities related to science for sustainable development that should be supported or encouraged within or by the UN system, including for the post-2015 development process;
- carrying out relevant intellectual work including providing advice to the UN Secretary-General on up-to-date scientific issues relevant to sustainable development, including advice on "assessments and digests around concepts as 'planetary boundaries', 'tipping points' and 'environmental thresholds'…". This will allow the Secretary-General to articulate scientific issues which have attracted widespread attention in contemporary affairs.

From Germany, the President of the German Academy of Sciences Leopoldina, Professor Jörg Hinrich Hacker is member of the Board.

Full article available at: http://live.rig2013.aperto.de/default/dachportal/en/Research- Landscape/News/2014/01/2014-01-24-UN-Scientific-Adivsory-Board-1st-meeting-in-Berlin.html

9.2 Germany is investing 3% of GDP in R&D - target achieved! (April 2014)

Research in Germany

According to figures released by the German Stifterverband and a corresponding press release by the Federal Ministry for Education and Research (BMBF), the total spending on R&D in Germany reached a new record high. The preliminary estimates assume an increase in business expenditures on R&D of 5.3% compared to 2011. +6% in spending on R&D by Higher Education Institutions, and +4.8% with regard to

Public Research Organizations. Overall, R&D expenditures in 2012 are estimated to be totaling €79.5b (USD 109 billion), i.e. the R&D/GDP ratio went up to 2.98%. In this light, the Ministry states that the 3% target has been achieved.

During the period 2010 - 2013, the Federal Government invested over €13b (USD 18 billion) more in the key areas of education and research than the €12b (USD 16.5 billion) previously planned. Between 2005 and 2013, the federal budget for R&D increased by about 60%.

Full article available at:

http://erawatch.irc.ec.europa.eu/erawatch/opencms/information/country_pages/de/highlights/highlight_00 <u>17</u>

9.3 Germany issues 1st national strategy for a European Research Area (August 2014)



The Federal cabinet of Germany adopted the Strategy of the Federal government on the European Research Area (ERA) on July 16th, 2014, which makes Germany the first EU Member State to produce its own strategy on the further development of European research policy. The publication of the document comes at a time when

the ERA is back in top of the EU's political agenda, with the EU Commission planning to present its second progress report on the ERA in September and the European Council expected to release in December the conclusions of a policy debate based on the document.

Full article available at:

http://www.eurekanetwork.org/about/-/journal content/56/10137/4265699?refererPlid=10195

Rectors' conference head slams EU funding priorities (September 2014)

A leading German higher education official has spoken out against the European Union's funding priorities for next year. According to Professor Horst Hippler, president of the German Rectors' Conference - the Hochschulrektorenkonferenz or HRK - the EU is doing too much for agriculture while neglecting research and innovation.

European heads of state are seeking to cut research and innovation funding by 11%. There would be €1.1 billion (US\$1.5 billion) less available for 2015 compared to what the European Commission has proposed. In contrast, agriculture subsidies are to be lowered by a mere 0.1%.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140819115432261

First German-Russian university opens in Tatarstan (September 2014)



Teaching has started at the first German-Russian university in Kazan, capital of Tatarstan. The new institution is being supported by the Tatarstan government and the German Academic Exchange Service, DAAD. The German-Russian Institute of Advanced Technologies, or GRIAT, has four engineering programs oriented to

standards in Germany. It receives funding via DAAD as part of the German Federal Education and

Research Ministry's "Transnational Education Program", and via the

Flag of Tatarstan

Republic of Tatarstan, which is a federal subject of Russia.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140904114522299

10 Hungary

10.1 New Research Center for Natural Science Inaugurated in Hungary (March 2014)



The new natural science research centre of the Hungarian Academy of Sciences (MTA) was inaugurated in Budapest in November 2013. This is the largest investment in the research infrastructure of MTA in the past forty years. The new research centre integrates in its 30,000 m2 surface 214 laboratories and provides modern working environment for more than half a thousand researchers. The volume of the investment was €32.7 million (USD 50 million).

Five research units of MTA are housed on the five levels of the new building, namely the Institute of Materials and Environmental Chemistry, the Institute of Molecular Pharmacology, the Institute of Enzymology, the Institute of Cognitive Neurosciences and Psychology, and the Institute of Organic Chemistry.

More information available at: http://mta.hu/news_and_views/30000-sq-ms-of-futureland-raised-in-mtas-new-research-centre-for-natural-sciences-133082/

11 Iceland

11.1 Iceland and Norway sign up to join Horizon 2020 (June 2014)



Iceland and Norway became the first non-EU countries to associate to Horizon 2020, the seven-year EU research and innovation program launched in January. The decision, taken at a meeting of the European Economic Area (EEA) Joint Committee, takes effect from the beginning of Horizon 2020 allowing these two countries' researchers and companies to participate on the same basis as their

counterparts in the EU. In return, the two countries will contribute financially to Horizon 2020, the biggest ever EU research and innovation program with a budget of nearly €80 billion (\$109.2 billion).

Full article available at:

http://europa.eu/rapid/press-release IP-14-566 en.htm?locale=en

11.2 Science and Technology Policy 2013 – 2016 (June 2014)



The Icelandic Science and Technology Policy Council adopted a new policy, for the years 2013 - 2016, in late November 2013. The essence of the new policy is defined in this way: Human resources are the most valuable resources any nation has and

following a period of severe austerity measures, priority will be given to creating favorable conditions for young, well educated people that choose to build their career in Iceland, thereby strengthening the foundations of the knowledge society of the future. A solid education system, together with a competitive labor market that can tackle the ever-changing needs of society and industry, are essential in this development. In order for this to happen, Iceland needs to emphasize international competitiveness and flexibility in the research and innovation environment.

Full article available at:

 $\underline{\text{http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/is/highlights/highlight_000}{2}$

12 Ireland

12.1 Science Foundation Ireland (SFI) announces €47 million (\$65.5 million) in funding for pioneering research initiatives through SFI Investigators Program (May 2014)



The Program will provide funding over a three to five year period, for 36 research projects involving over 200 researchers. Funding for each project will range from €400,000 (\$ 557,000) to €3.1 million (\$4.7 million).

Funding will be for pioneering research initiatives, delivered by the Department of Jobs, Enterprise and Innovation, through the SFI Investigators Program. The Program will provide funding over a three to five year period, for 36 research projects involving over 200 researchers.

Full article available at:

http://www.alphagalileo.org/ViewItem.aspx?ItemId=141455&CultureCode=en

12.2 New Smart Futures program (June 2014)



A new 3-year program, <u>Smart Futures</u>, was launched in April 2014 in Ireland to encourage more students to study Science, Technology, Engineering and Mathematics (STEM). The program seeks to improve the strategic coordination and alignment of industry-outreach resources and drive the uptake of students selecting

STEM subjects at secondary and higher education. Smart Futures began as a pilot in late 2011 following a previous 'Science in Schools' initiative and is now part of the Government's Action Plan for Jobs. It is coordinated by SFI Discover (formerly Discover Science & Engineering), the education and outreach program of Science Foundation Ireland (SFI), in partnership with Engineers Ireland's education outreach program, STEPS.

Source:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/highlights/highlight_0024

13 Israel

13.1 EU, Israel sign Horizon 2020 association agreement (June 2014)



European Commission's President José Manuel Barroso and Israeli Prime Minister Benjamin Netanyahu today witnessed the signature of Israel's association to Horizon 2020, the new EU research and innovation program. Horizon 2020 offers a huge opportunity to enhance the traditionally active cooperation between Israeli and EU researchers and innovators. Under the terms of the agreement, Israel will have

the same access to the program as EU Member States and other Associated Countries. In return, it will contribute to the Horizon 2020 budget.

Full article available at:

http://europa.eu/rapid/press-release_IP-14-633_en.htm?locale=en

14 Italy

14.1 The New Italian National Research Plan for 2014-2020 Announced (April 2014)

At the end of January 2014 the Italian Minister for Education University and Research (MIUR) Maria
Chiara Carrozza introduced to the Council of Ministers of the government the new
National Program for Research (PNR) 2014-2020. PNR2014-2020 is the strategy
document of MIUR which will complement the previously published "Horizon2020
Italia - HIT2020" document and outlines long term targets of the Research &
Innovation system.

& innovazione

The PNR 2012-2020 has been set up on a seven years strategy, in order to be coherent with the EU Horizon program and with EU structural funding framework to facilitate cross border interoperability. The new PNR defines 11 grand challenges for the Research & Innovation system:

- Scientific and cultural progress
- Health, demographic change and wellbeing
- European Bio-economy Challenges

- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Europe in a changing world inclusive, innovative and reflective societies
- Space and astronomy
- Secure societies protecting freedom and security of Europe and its citizens
- Restoring, preserving, valuing & managing the European Cultural Heritage, Creativity
- Digital Agenda

MIUR committed a total yearly investment of 900 millions (USD 1240 million) Euros to implement the measures included in the program.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/it/highlights/highlight_000 5

15 Kosovo

15.1 Huge growth in higher education access but too few industry links (September 2014)



Kosovo's higher education system has been undergoing a tremendous change in the last decade. With access to higher education currently at over 60% of the school-leaving cohort, from a mere 15% in 1999, the government has opted for mass higher education. Five new public universities have been established in the last five years and there are

approximately 30 private accredited colleges in the country.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140814160710229

16 Macedonia

16.1 Fund for Innovation and Technological Development established by the Government of the FYR (former Yugoslav Republic) of Macedonia (June 2014)



The Fund for Innovation and Technological Development, which is envisioned in the Law on Innovation Activity, launched its activities in January 2014 after enacting its statute. The mission of the fund is to provide financing and co-financing of research and innovative projects, as well as technical assistance and consulting services for

start-up and existing enterprises. In 2014 the fund will be mainly financially supported by the government.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/mk/highlights/highlight_0013

17 Malta

17.1 Malta Publishes the National Research and Innovation Strategy 2020 (March 2014)

The Maltese National Research and Innovation (R&I) Strategy 2020 has been finalized and adopted by the Cabinet on 18 February 2014. The aim of the strategy is to provide an enabling



the Cabinet on 18 February 2014. The aim of the strategy is to provide an enabling framework to embed research and innovation at the heart of the Maltese economy to spur knowledge-driven and value-added growth and to sustain improvements in the quality of life. It builds on past achievements as well as lessons learnt along the way.

The strategy aims to put in place the following 'building blocks':

- A comprehensive R&I support ecosystem that would be independent of thematic specializations, thus providing a baseline level of support for all players and embedding flexibility to support any new specialization areas which emerge over time.
- Investing in a stronger knowledge base is a longer-term investment, the fruits of which may or
 may not be reaped within the timeframes of this Strategy. This goal balances the overarching
 orientation of this Strategy towards close-to-market R&D and innovation by building capacity and
 excellence in the earlier stages of the R&D process.
- The smart, flexible specialization goal targets the establishment of a knowledge-based economy by prioritizing its achievement in a number of thematic areas.

The strategy will be complemented by a separate, rolling R&I Action Plan involving all relevant stakeholders to identify, agree and implement measures addressing the strategic principles while ensuring clear ownership and budgetary sources, coherence and value for money.

More information available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/mt/highlights/highlight_00 25

18 Moldova

18.1 National Agency for Quality Assurance in Professional Education to be established (June 2014)



A new agency for assessing the quality of education in Moldova will be established in accordance with the amendments to the Law on Education (1995), approved by the Parliament in December 2013. It will also assess the quality of university research. Under the amendments to the Law on Education, the National Agency for Quality Assurance in Professional Education will be required to accredit higher

education institutions and contribute to policy development in this area, to the credibility of higher education and professional qualifications in Moldova. The new agency will have a Boarding Council made up from of 15 members. They will be elected based on contest wherein international experts will participate. The mandate of each member of the Council will last 4 years. This agency will assess programs and institutions, including university research, in order to grant the right to organize training for the 3 cycles of higher education. The law also provides the establishment of the third cycle of higher education - PhD, regarded so far as research; organization of PhD studies in doctoral schools; two types of doctorate (scientific and professional); a credit system of 180 credits for the 3rd cycle of higher education.

Source:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/md/highlights/highlight_00 13

Additional information:

Moldova: The new framework for designing, implementing and evaluating the national innovation policy to be set - At the end of November 2013 the Moldovan Government approved the national innovation strategy. The strategy, which is the first policy document in the field of innovation, has initiated important institutional changes and measures to stimulate innovation activities.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/md/highlights/highlight_00 12

Moldova: The first national R&D Strategy was approved - The Strategy of research-development of the Republic of Moldova to 2020 was approved by the Moldovan Government at the end of December

2013. The first R&D strategy on the national level sets the vision of science development for the next seven years.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/md/highlights/highlight_00 11

18.2 Moldova associated to Horizon 2020 (August 2014)



The Republic of Moldova and the European Union signed the association agreement for the new seven year research and innovation program, Horizon 2020 on 1 July 2014. The association agreement will apply retroactively as from 1 January 2014.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/md/highlights/highlight_00 17

Additional information available at: http://europa.eu/rapid/press-release IP-14-746 en.htm?locale=en

19 Montenegro

19.1 First Center of Excellence in Montenegro (March 2014)



On 4th February 2014 the Ministry of Science of Montenegro announced the results of the Call for establishment of the first center of excellence in Montenegro. The Call, that was announced on May 30th and closed on 20th September 2013, has been open for all licensed scientific institutions from Montenegro. In total 10 applications were submitted. The group of international experts based on several criteria

including finance, scientific approach, innovation, creativity, competitiveness, sustainability and commercial aspect did evaluation. Also, one of the criteria was that projects are aligned with the priorities defined by the current Strategy for Scientific Research Activity.

The project BIO-ICT, submitted by the Faculty of Electrical Engineering of the University of Montenegro, is the first ranked. The second ranked was Biotechnical faculty also from the University of Montenegro with the project FoodBoostMe. The negotiations with the first ranked institution started on 19th February 2014. The future Centre will have 3.7 million Euros (USD 5.1 million) in the next three years for the improvement of the scientific research work.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/me/highlights/highlight_00 04

19.2 Strategy for scientific and research activity of Montenegro (2008-2016) (June 2014)



Starting from the Stabilization and Association Agreement of Montenegro with the European Union, as well as from the general trends of the globalization process, with the competitiveness of the national economies becoming the basic factor of society development, the Government of Montenegro must be resolute in its intent to build Montenegro as a state oriented towards science and technology. Based on the above mentioned Agreement and the Lisbon Strategy, the fundamental

document of EU which the national strategies of the member countries rely on, Montenegro starts development of the Strategy for Scientific-Research Activity (hereinafter: Strategy for SRA) with the aim of creating a knowledge based society. Society based on knowledge must recognize the importance of education and scientific activity and rely increasingly on its scientific-research institutions. In the conditions of an open society and a market oriented economy, knowledge reaches the highest price.

Source:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/me/policydocument/policy doc_0003

20 Norway

20.1 Ambitious New Educational Research Program in Norway (February 2014)

The Research Council of Norway's new Program for Research and Innovation in the Educational Sector (FINNUT) will allocate a total of NOK 700 million (USD 113 million) over a 10-year period.

At the recent kick-off conference for the program, a pleased Executive Director Jesper Simonsen of the Research Council stated that the Norwegian educational

sector and educational research are clearly in a very positive phase. The FINNUT program will help to renew the research field, says Jesper Simonsen. "The FINNUT program has been established to further develop knowledge institutions and the overall administration of education to the benefit of pupils, teachers and society at large. The program will help to renew the research field, promote innovation in the sector and serve as a collaborative arena for all of the actor groups involved," explains Mr Simonsen. He also points out that the program is a pilot activity in the larger effort to foster innovation in the public sector in Norway.

The FINNUT program consolidates two former Research Council program: the Program for Practice-based Educational Research (PRAKUT) and the Program for Norwegian Educational Research towards 2020 (UTDANNING2020). Professor Elaine Munthe of the University of Stavanger is the chair of the FINNUT program board, while Ane Marte Rasmussen is the program coordinator at the Research Council. A total of more than NOK 160 million (USD 26 million) is available for allocation under the program via six calls for proposals with an application deadline of 12 February.

In his remarks at the opening conference, Director General Eivind Heder of the Ministry of Education and Research pointed out that there has been major growth in public funding for educational research channeled through the Research Council in recent years, from NOK 9 million (USD 1.5 million) in 2001 to NOK 80 million (USD 13 million) in 2014.

The Ministry views it as particularly important for the FINNUT program to encourage interdisciplinarity and build on existing national and international knowledge to ensure that research activities are as cumulative as possible. The dissemination of research results to ensure that they are utilized is another crucial task.

The FINNUT program will provide funding to research and innovation activities within the following thematic priority areas:

- Learning processes, assessment forms and learning outcomes;
- Practice, professional practice and competence-building;
- Management, administration, organization and achievement of results;
- Education, society and working life.

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/Ambitious_new_educational_research_programme/125399 2341450/p1177315753918

20.2 Norway Introduces a PhD Scheme for the Public Sector (March 2014)

Over 200 public institutions and their employees have expressed interest in the Research Council of Norway's new scheme for doctoral degree education in the public sector. In the course of 2014, public enterprises and organizations will be able to apply for funding from the Research Council for an employee seeking to pursue a doctoral degree in a subject relevant to the enterprise's area of responsibility. The new scheme is modeled on the Industrial Ph.D. scheme launched in 2009.

"It is very encouraging to see the amount of feedback we have received from all segments of the public sector," says Arvid Hallén, Director General of the Research Council of Norway. Mr Hallén points out that there is a close connection between the Public Sector Ph.D. scheme and the Research Council's priority budget initiative, "Active and healthy for many years".

Nearly half of those who have expressed interest in the new Ph.D. scheme represent municipal or county administrations. The topics proposed for research extend across a broad range of subjects.

To be eligible for the Public Sector Ph.D. scheme, candidates must have received confirmation of admission to an organized doctoral degree program at a degree-conferring institution that has the same quality requirements and guidelines as other doctoral degree programs. The doctoral research project must be aligned with the long-term competency needs of the organization.

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/Keen_interest_in_PhD_scheme_for_the_public_sector/125 3993754061

20.3 New Mobility Grant Scheme in Norway (April 2014)

The Research Council of Norway is issuing a call for an entirely new mobility grant for young researchers seeking to work abroad. The grant scheme is open to applicants in all fields and disciplines and is



designed to promote mobility and enhance career development among young researchers. Applicants must have successfully defended their doctoral thesis less than six years ago to be eligible. Increasing the number of Norwegian researchers conducting research stays at top institutions abroad is an overall Research Council objective. Activities abroad enable researchers to develop their independence, establish their own networks and co-author publications with researchers other than their doctoral supervisors. The scheme involves cooperation with a Norwegian host institution that "lends" a researcher to an institution abroad and receives funding for

a year of reintegration upon the researcher's return. This enables both the Norwegian host institution and the researcher him- or herself to put the knowledge and networks gained during the stay abroad to use at home.

Funding is available for 14 mobility grants in 2014, with a total budget of roughly NOK 45 million (USD 7.4 million).

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/New mobility grant under the FRIPRO scheme/1253993 802969

20.4 New Norwegian R&D policy for university colleges (May 2014)

University colleges* play an important role in the interplay between research, education and innovation. The Research Council of Norway is now presenting a new policy for R&D activity at university colleges.

The Research Council has developed the policy in close dialogue with the university colleges, based on an extensive consultation round. The policy describes the challenges, objectives and instruments for three action areas: capacity building, consolidation of research groups, and increased cooperation on R&D in collaboration with working life.

*Note: A university college is an independent institution that provides tertiary education (Bachelor and Master degrees) and in some cases also quaternary education (PhD). In Norway, the main difference is that the university colleges must apply to a central government agency to establish new master's and PhD degrees, whereas a university has the right to award degrees in any field and at all levels without applying. The distinction between universities and university colleges have been gradually phased out through legislative reforms in 1995 and 2005, the two types of institutions are now governed by the same law, they have the same structure and the same obligation to provide research-based education.

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/New RD policy for university colleges/1253995847176

20.5 14 new research infrastructures made the list (May 2014)

Fourteen new projects have been added to the Norwegian Roadmap for Research Infrastructure 2014, which provides an overview of laboratories, databases and equipment that are of particular importance for Norwegian research.

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/14_new_research_infrastructures_made_the_list/12539959 26009

20.6 Norway more innovative than previous surveys suggest (July 2014)

In a new survey, Statistics Norway finds that Norwegian trade and industry has far more innovators than indicated by previous international surveys of innovation capacity.

The difference can largely be explained by survey methodology. This time, Statistics Norway measured innovation on its own, whereas the previous surveys measured a combination of innovation and research and development activity.

Full article available at:

http://www.forskningsradet.no/en/Newsarticle/Norway_more_innovative_than_previous_surveys_suggest/1253997022614

21 Poland

21.1 Prioritizing Future Support for R&D Efforts in Poland (March 2014)



The Polish Ministry of Economy initiated public consultations on a policy document, titled National Smart Specialization, addressing specific technology focus areas which will guide the distribution of R&D funds.

The document includes 16 priority areas clustered into 5 thematic groups:

- Healthy society
- o Medical engineering including medical biotechnologies
- Diagnostics and therapeutics of lifestyle diseases and personalized medicine
- o Pharmaceutical technologies
- Bioeconomy in agricultural, food production and environmental sectors
 - o Innovative technologies, processes and products for agriculture and food production
 - Healthy food with high quality and environmental friendliness
 - Biotechnological processes and products of chemistry and environmental engineering
- Sustainable energy sector
 - High performance, low emission and integrated systems for production, storage, transmission and distribution of energy
 - Intelligent and energy-efficient buildings
 - Environmentally-friendly transport
- Natural resources and waste management
 - Novel technologies for exploitation and use of natural resources and production of their substitutes
 - Use of waste as material and inputs into energy generation
- Innovative technologies and industrial processes
 - Multi-functional materials and composite materials with advanced features, including nano-processes and nano-products
 - Biosensors and intelligent sensor networks
 - o Intelligent networks and teledetection
 - Plastic and organic electronics

Automatics and robotics in technological processes

More information available at: http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pl/highlights/highlight_002

21.2 New Polish R&D Program TANGO Targets Commercialization of Fundamental Research Results (March 2014)





The Polish National Research & Development Centre (NCBiR), the applied R&D funding agency, jointly with National Science Centre (NCN), the basic research funding agency, established a funding program TANGO. TANGO supports the implementation of practical results of NCN-financed, fundamental research projects. In this way, the program closes the gap between basic and applied research, encouraging scientists to look for commercially feasible uses of their research. The TANGO funding opportunity is intended to support the innovative endeavor of developing advanced technologies and bringing them to the market, as well as to strengthen the cooperation between research institutions and corporate entities. The

application procedure in TANGO consists of two stages: the first one takes place at the NCN, the other at the NCBR. At both stages, proposals undergo evaluation by the same Expert Team. The NCBR has set the budget of TANGO at PLN 40 million (USD 13 million).

More information available at: http://www.ncn.gov.pl/aktualnosci/2013-12-17-tango-komunikat?language=en

21.3 General Assembly of Science Europe in Krakow: New President Elected (June 2014)

On the 20th of May, the National Science Center, the Polish national agency supporting fundamental research, acted as host to the General Assembly of Science Europe, an association promoting the collective interests of European Research Funding Organizations (RFO) and Research Performing Organizations (RPO), comprising 52 such organizations from 27 countries.

One of the key events of the assembly was the election of the new President of Science Europe. The incumbent president, Professor Paul Boyle, is ending his term in August 2014. The representatives of member organizations of SE convening in Krakow unanimously chose Professor Miguel Seabra, from Portugal, as the next president. He will assume his duties on the 1st of September 2014.

Full article available at: http://www.ncn.gov.pl/node/1424

22 Portugal

22.1 Funding Cuts Threaten the Future of R&D in Portugal (February 2014)



Drastic cuts in public funding for science and technology in Portugal are being applied as part of the government's sweeping austerity measures, without thought for a national long-term science strategy. The effects are particularly hard on young scientists. The number of PhD and postdoctoral fellowships awarded by the country's principal funder, the Science and Technology Foundation (FCT), fell by 40% from 2012 to 2013, and the 2014 budget for fellowships fell by 16.5% compared with last year.

Coupled with reductions in funding for research centres and research and development (R&D) projects, these cuts have serious long-term implications for the country's chance of developing a knowledge-based economy.

22.2 The Sustainability of the Science System at Stake (June 2014)

The current financial constraints and the economic crisis may jeopardize the efforts undertaken over the last decades to develop an integrated and mature research system. The most recent research policy actions have been controversial among the scientific community. Guaranteeing the sustainability of the past achievements remains as a critical challenge.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pt/highlights/highlight_0007

23 Romania

23.1 Romanian researchers stay home to take part in EU programs (July 2014)



EU-funded research projects in Romania are helping the country retain talent. Young researchers, who might be tempted to look for a career abroad, find they can contribute at an even higher level by staying at home and participating in exciting projects. They still get to travel, work with specialists in other European countries,

and make important private sector contacts.

Full article available at:

https://ec.europa.eu/digital-agenda/en/news/romanian-researchers-stay-home-take-part-eu-programmes

24 Russia

24.1 Russian Government Eyes International Student Market (February 2014)



Despite Russian universities' low international rankings, many foreigners continue to enroll in the country's institutes. This year, the government has allocated more than \$1 billion to raise the prestige of getting a Russian education.

Just a couple of years ago, 145,900 foreign students were studying in Russia. Today, that figure is rising. Why do foreigners wish to study in Russia? Many students say they come for the high-quality, inexpensive education. These are future engineers, doctors and teachers — that is, representatives of the "difficult" professions. Most of them subsequently return home, but many stay — around 35 percent, according to estimates.

"We have a unique school in our academy. Students come specifically for that," said Temirlan Dzhandarov, chair of the department of international cooperation at the Gnessin Academy of Music.

Few Russian universities have landed on the lists of the world's most prestigious universities. According to one list, only Moscow State University is in the top 100, and St. Petersburg State University is in the top 1,000. According to a different list, 18 Russian universities make the top 100. These showings are connected partly to how little the Russian education system is integrated into the world academic program. Even the government is aware of the serious lag of Russian universities and has earmarked 35 billion rubles (more than \$1 billion) for promoting Russian universities in the global educational rankings.

Full article available at: http://rbth.co.uk/society/2014/01/12/education for 1 billion 33181.html

24.2 Russian Science Foundation Established (February 2014)



A law on the new Russian research funding agency, the Russian Science Foundation, was approved on 2 November 2013. It is planned that the agency will be set-up to operation in the course of a year. Its tasks and place in the national innovation system need still to be defined in detail. The law foresees preliminarily that the Foundation will be providing financial and organizational support for basic and exploratory research, for the training of researchers, and for leading research teams. It is not clear yet, which role it will take towards the already existing funding

agencies, in particular the Russian Foundation for Basic Research and the Russian Foundation for Humanities.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ru/highlights/highlight_001

24.3 Russian Federal Agency for Scientific Organizations Established (February 2014)



In the frame of the reform of the Russian Academy of Sciences (RAS) a new Federal Agency for Scientific Organizations (FASO) has been established. The new state agency will take over the management of the institutes and of the vast property

of the Academy. It is the result of a major reform of the Academy, which came into force with a law on the reorganization of the state academies on 30 September 2013. The reform caused heated debates in the Russian scientific community, whereby several scientists suspected the dissolution of the Russian Academy of Sciences in its current form. In the course of the coming year the management of the Academy's property and decisions on the R&D personnel will be discussed among FASO and the RAS leadership, before definite decisions will be taken. The effects of the reform are not clear yet; FASO may well become an important player in Russia's national innovation system. Former Deputy Minister of Finance, Mikhail Kotyukov, has been appointed as head of FASO.

Full article available at:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ru/highlights/highlight_001

24.4 Plan to increase research at national universities (June 2014)

The government is aiming to improve the position of Russian science in the global arena by accelerating research activities at national universities.

According to a recent report by Thomson Reuters, Russian science lags significantly behind most countries in the G20. Statistics show that over the past decade, the share of Russian papers in the Web of Science international database has dropped from 3% to 2.1% – and the papers go largely unnoticed by foreign scientists.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140522182157898

24.5 New higher education ranking system expected by 2015 (June 2014)



Russia plans to produce an official international ranking of higher education institutions, including universities in Commonwealth of Independent States, BRICS – Brazil, Russia, India, China and South Africa – and Shanghai Cooperation Organization countries by June 2015, the government said last week.

The Ministry of Education and Science of Russia and the interested federal executive bodies and organizations ought to organize the production of the international rankings of higher education institutions providing measures to ensure international recognition of such ratings.

http://www.universityworldnews.com/article.php?story=20140529203755750

24.6 Russia in EUREKA, the Russian viewpoint on transnational collaboration in innovation (August 2014)

Today and more than ever before, EUREKA (a European intergovernmental association for market-driven R&D) looks into balancing the full involvement of its member countries with a strategy for international expansion. Both actions are complementary, not alternative: market opportunities must be opened to innovative companies, wherever they are and if countries such as Russia or Poland represent huge market potentials for western innovative entrepreneurs, the contrary is also true.

Full article available at:

http://www.eurekanetwork.org/showarticle?p r p 564233524 articleId=4245063

24.7 Medvedev orders creation of Crimean Federal University (September 2014)

Russia's Prime Minister Dmitry Medvedev has issued a directive about establishing a Crimean Federal University named after Vladimir Vernadsky. The directive was posted on the Russian government's website, reports ITAR-TASS.

A concept note attached to the directive points out that the Federal University is to be established on the basis of seven higher learning institutions and seven research organizations. The Russian Ministry of Education and Science has been assigned to work out a federal university development program within six months and refer it to government for approval.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140814203107499

24.8 Economic sanctions not ending Russian study abroad (September 2014)

Economic sanctions imposed on Russia by Western countries after Ukraine's Maidan revolution do not appear to be disrupting Russian students in foreign universities. Most will continue to study in Europe and elsewhere under numerous initiatives, including one known as Global Education that was recently approved by the government.

Under the scheme, which will run from 2014-16, Russian students will be able to study in Western universities in numerous fields including medicine, engineering, management and others.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140824081658182

25 Serbia

25.1 Serbia is a Rising Star in Astronomical Research (January 2014)



Pushing the boundaries of astronomy is only possible if you have the latest technology at hand. An EU-funded project aims to ensure that the Astronomical Observatory of Belgrade is equipped to become one of Europe's most dynamic and competitive centers of discovery.

Pavilion of Large Refractor of Belgrade Observatory

The Astronomical Observatory of Belgrade (AOB) is one of the oldest and most distinguished scientific institutes in Serbia, which celebrated its 125th anniversary in 2013. While the observatory continues to be a regional center of excellence, participating in nine national research projects, with 20 principal

scientists, it was recently acknowledged that an upgrade was needed to ensure that it was visible to other European researchers, and that it could participate fully in international research initiatives. This is why the Belissima project, funded through the European Union Seventh Framework (FP7) Research Potential program, was established, to enhance existing research capacities and to forge links with other institutions across Europe. The ultimate objective is to establish the AOB as the Balkan region's most dynamic and competitive center for astronomical and space sciences, with a truly European reach.

More information available at:

http://ec.europa.eu/research/infocentre/article_en.cfm?id=/research/star/index_en.cfm?p=ss-bellissima&calledby=infocentre&item=Infocentre&artid=31540

26 Spain

26.1 Education authorities mull over UK-like loan system (July 2014)



Education authorities are considering replacing Spain's student grant system with loans in the same format as seen in the United Kingdom, given that higher education costs to the state have rocketed in recent years.

Secretary of State for Universities, Professional and Vocational Training and Education, Montserrat Gomendio, pointed out that in Spain students are given "sizeable sums of money" enabling them to study without getting a part-time job on

top, and do not have to pay it back when they finish college.

Spain has a total of 82 universities, with an average of one per year having been created in the past decade, offering 7,000 degrees to 1.5 million students, and until recently they all received government grants covering at least tuition fees and normally a subsidy towards living costs.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140619211053354

27 Sweden

27.1 New Legislation in Sweden to Help Foreign Postgraduates Stay On (April 2014)

On 1 July this year, new legislation will come into force in Sweden that includes measures which will make it considerably easier for foreign doctoral candidates and students to stay and work in the country after graduating. An agreement between the outgoing Alliance government and the Swedish Green party will secure a majority vote for the proposal in the parliament. Doctoral candidates are included in the legal text together with international migrant workers, and they will be able to qualify for permanent residence permits after their studies, so long as they have spent four out of the past seven years in Sweden with a study permit. Foreign students will also be allowed to stay in Sweden after graduating, to apply for work or investigate the possibility of establishing their own company. The draft legislation does not specify how long they will be able to stay, but it could be for six months after graduation.

Full article available at: http://www.universityworldnews.com/article.php?story=20140320135515441

28 Switzerland



28.1 E.U. Postpones Horizon 2020 Talks with Switzerland after Immigration Vote (February 2014)

Swiss scientists could be the first to feel the effects of a referendum in which Swiss people agreed to cap the entry of migrants into their country. As an indirect consequence of the vote, held on 9 February, the European Union has postponed negotiations to include Switzerland as an associated country to Horizon 2020, the

bloc's research and innovation program, and to the higher education program Erasmus+, which both run from 2014 through 2020. Switzerland has been an associated country to the European Union's research programs since 2004; this means that Swiss researchers are eligible for funding just like scientists from

an E.U. member state. Both sides assumed that the agreement would soon be renewed and would apply retrospectively from the beginning of Horizon 2020 on 1 January.

But the immigration referendum got in the way—indirectly. The European Union expects Switzerland to include Croatia, which entered the union last year, in its agreement on the free movement of persons. But after the vote, Switzerland informed Croatia that it would not be able to sign the deal in its current form. The European Commission had warned that not honoring the Croatian deal would endanger Switzerland's association agreements for Horizon 2020 and Erasmus+.

If Switzerland lost its associated country status, it would be considered as a third country. Under a third country scenario, Swiss institutions would not be able to host grantees from the prestigious European Research Council (ERC).

The delays do not affect scientists who receive money from Horizon 2020's predecessor, the Seventh Framework Program (FP7): these projects will be funded until they end. To become associated with FP7, Switzerland paid about €1.6 billion (USD 2.2 billion) into the E.U. budget, according to the European Commission. At the last count in November 2013, Swiss researchers took part in about 3000 projects under FP7, receiving €1.8 billion (USD 2.5 billion) from the European Union. These figures include about €500 million (USD 685 million) going to more than 300 ERC grantees.

Full article available at: http://news.sciencemag.org/europe/2014/02/e.u.-postpones-horizon-2020-talks-switzerland-after-immigration-vote

28.2 Swiss Science Set to Stay International (April 2014)

By Martin Vetterli, Swiss National Science Foundation, Bern, Switzerland

Curbs on immigration resulting from last month's Swiss referendum (see Nature 506, 265; 2014) have led to Switzerland's exclusion from the competition for European Research Council (ERC) grants. This is a devastating blow, given that the country has the highest share of international researchers on ERC grants. Thanks to the Swiss National Science Foundation (SNSF) stepping in to run a temporary parallel program, however, Swiss science can remain international and competitive. The SNSF has supported basic science through single-investigator grants for more than 60 years. The new temporary SNSF schemes will help researchers who are working in Switzerland or negotiating with Swiss institutions and who were planning to participate in the ERC competition. The schemes will have similar deadlines, procedures and success rates to the ERC's, and the evaluation panels will comprise distinguished scientists from Switzerland and abroad. ERC grants represent a sort of 'Champions League' for researchers in Europe, and so it will not be easy to run a local program of the same caliber. However, Switzerland will now be able to maintain its strong international track record: 49% of our professorial bodies are international, 33% of our researchers are abroad, and 28% of our students are foreigners.

Full article available at: http://www.nature.com/nature/journal/v507/n7493/full/507431a.html

28.3 EU immigration ruling keeps foreign students away (September 2014)

The fall-out from Swiss voters' decision to limit European Union immigration is not just affecting businesses. Uncertainty over grants means up to a third fewer foreign students have registered at Swiss universities this semester.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140904210144986

28.4 Swiss scientists regain access to some E.U. grants through 2016 (September 2014)

Starting today, scientists in Switzerland will again be able to apply for some research funds from the European Union's Horizon 2020 program—including coveted grants from the European Research Council (ERC). Both sides reached a short-term deal undoing restrictions imposed on Swiss scientists after a referendum to curb mass immigration back in February.

Scientists were the first to feel the cooling of the relationships between the European Union and the country it surrounds after the referendum. The union expected Switzerland to include Croatia, which

entered the union last year, in its agreement on the free movement of persons. But following the referendum vote, Switzerland said it couldn't sign the Croatian deal. As a result, Switzerland lost its privileged status as an "associated country" in Horizon 2020, the bloc's research funding program.

Full article available at:

http://news.sciencemag.org/europe/2014/09/swiss-scientists-regain-access-some-e-u-grants-through-2016

29 Turkey

29.1 Turkey joins Horizon 2020 research and innovation program (June 2014)

Turkey will get full access to the European Union's new seven year research and innovation program, Horizon 2020, under an agreement signed today in Istanbul. The agreement granting association status to research entities from Turkey was signed by European Commission Director-General for Research and Innovation, Robert-Jan Smits, and Ahmet Yücel, Acting Undersecretary of Turkey's Ministry for EU Affairs. Turkey is the third EU partner country to become associated to Horizon 2020.

Full article available at:

http://europa.eu/rapid/press-release IP-14-631 en.htm?locale=en

30 United Kingdom

30.1 UK Reviews Engineering Skills (January 2014)

The Chief Scientific Advisor to the UK Department of Business, Innovation & Skills (BIS), Professor John Perkins has reported on his review of the provision of engineering skills in the UK economy. The review confirms the widely accepted view that a substantial increase in the supply of engineers entering the



Professor John Perkins' Review of Engineering Skill



labour market would be of benefit to the UK economy, through helping the economy to be more flexible and resilient, and enable more people to take up the new opportunities offered by technological change.

The Perkins review includes 22 recommendations for action by government, industry, the engineering profession, and the education sector. Key messages include the need to inspire young people throughout their education and to improve the engineering skills supply system to help develop the types of engineer needed by current and future industries.

More information available at:

https://www.gov.uk/government/publications/engineering-skills-perkins-review

30.2 The Role of Large Research Facilities in the UK (January 2014)



The report "Big Science and Innovation" by Technopolis Group, explores the role of large scientific research facilities in the UK and how they work with the innovation system, in the context of reduced capital funding stemming from the government's Spending Review 2010.

Central Laser Facility for ultrafast I aser and Extreme Ultra Violet (XUV) science Artemis, Credit STFC

Large facilities are types of research facilities that combine large investments in state of the art equipment and associated infrastructure, often with large and highly-skilled operational support teams and related services. They are important tools for science, central to the ability to push the boundaries of what we

know. Large facilities range from single sites like the Central Laser Facility to virtual labs like the Economic and Social Data Services.

The report provides a list of UK large facilities, and shows their important role in the national science and innovation system. It shows the substantial benefits that these large facilities bring to society, including:

- innovation required in their actual construction due to their cutting-edge nature
- marketable benefits such as patents and licenses
- non-marketable benefits such as new knowledge

Full report available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249715/bis-13-861-big-science-and-innovation.pdf



30.3 UK's EPSRC E-Infrastructure Roadmap Published (February 2014)

A coherent strategy for developing and delivering the UK's future e-infrastructure needs is essential in driving forward the continued development of a globally competitive research base within the UK. The Engineering and Physical Sciences Research Council (EPSRC) along with its sister Research Councils, the Funding Councils, the Technology Strategy Board and the Department for Business, Innovation & Skills (BIS) plays a key role in developing the strategy as well as delivering the funding to support e-infrastructure in the UK and the development of a sustainable and cutting edge e-infrastructure eco-system is vital in allowing EPSRC

to deliver its Strategic Goals and support excellent and innovative science and engineering research.

The EPSRC Research Infrastructure team, with the help of its Strategic Advisory team, Research Council colleagues and key members of the EPS community, have formulated an EPSRC e-infrastructure roadmap to begin to develop a clear strategy and action plan for EPSRC. In the roadmap EPSRC aims to:

- Understand the whole UK e-infrastructure landscape, view it holistically and consider it within an international context
- Understand the requirements of the EPS research community that make use of e-infrastructure; ensuring there are no gaps or duplication
- Identify where EPSRC, and more specifically the EPSRC Research Infrastructure team can add the most value
- Provide a framework for spending reviews and business cases for funding opportunities from government
- Be used as a discussion tool with other stakeholders and Research Councils.

Due to the fast moving nature of developments and investments in this area we are proposing that the roadmap will be treated as living document and we invite feedback and further input from the broader research community and key stakeholders. The first proposed revision date for the roadmap is June 2014.

Full article available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/infrastructureroadmap.aspx

30.4 USD 500 Million Investment to Support Growth and Jobs in UK Science (March 2014)



Cutting-edge science projects to drive innovation, growth and create jobs in the UK's high performing science sector, will benefit from a £300 million (USD 500 million) boost as part the government's long term economic plan, Science Minister David Willetts announced on March 10 2014. Speaking to an audience of scientists, apprentices and school children, the Minister confirmed the following new investments:

European Spallation Source

• £165 million (USD 274 million) for the European Spallation Source (ESS), one of the largest science and technology infrastructure projects of our time. The creation of this giant powerful

neutron microscope will be able to better observe the world and the universe. This brings with it the potential to discover materials for faster planes, new and better computer chips, new drugs, super long-life batteries and feather-lightweight kit for our military. 30 times more powerful than microscopes we use today and the size of 140 football pitches, this technology will create and secure thousands of jobs.

- £100 million (USD 166 million) contribution to The Square Kilometre Array. This will be the largest and most sensitive radio telescope in the world, stretching technology to its limits. This telescope will produce ten times the current global traffic of the internet. British scientists are already helping to develop the central computer which will read the huge volume of new data, meaning this project could lead to faster smartphones and increased internet speeds across the UK in the future. The global market for data analysis is also expected to be worth £31 billion by 2016 with Britain in a prime position to dominate the market.
- £25 million (USD 42 million) to participate in the M3 Space Mission (PLATO). The UK will take a leading role on PLATO, a giant telescope made up of 34 telescopes. The UK is a world leader in satellite technology and the space sector supports 95,000 full time jobs, generating £9.1 billion (USD 15 billion) for the economy each year. This investment will secure key roles for British firms as part of the mission and maintain UK international competitiveness in world class research.

These investments will see British scientists and businesses working together on some of the most exciting scientific projects of the future. The UK is one of the most productive science nations in the world - with only 1 per cent of the world's population we publish 16 per cent of the world's top quality research. And every £1 spent on research generates 50p for the wider economy every single year after. Today's announcements also build on the £270 million (USD 450) investment in quantum technologies announced by the Chancellor in his Autumn Statement last year.

Full article available at: http://news.bis.gov.uk/Press-Releases/-300-million-investment-to-support-growth-and-jobs-in-UK-science-69a0c.aspx

30.5 Shell Signs a Memorandum of Understanding with UK Engineering and Physical Science Research Council (March 2014)



Atti Emecz, EPSRC's Director of Strategy and Business Relationships and Thijs Jurgens, Vice President of Innovation at Shell

Multinational oil and gas company Shell has signed a Memorandum of Understanding (MoU) with the Engineering and Physical Sciences Research Council (EPSRC). The five year partnership will enable Shell to gain greater understanding of the research landscape in which the research council operates and help EPSRC fulfill part of its strategy to drive UK economic growth. The MoU details how Shell and EPSRC will work together to understand the challenges each faces and identify where research may be able to contribute. It aims to identify synergies between

Shell and EPSRC-funded research and training activities where they relate to Shell technology strategies. Collaborating in this way will benefit EPSRC in a number of ways, for example helping to identify opportunities for joint

funding and postgraduate training which align with both partners' requirements. The partnership will also help EPSRC identify measure and demonstrate the impact of working with the company. Working with EPSRC will give Shell an insight into EPSRCs strategy and business needs, as well as the benefits of working with the funder. The alliance will also let Shell act as an advocate for EPSRC, the research councils and long-term research. The partnership will let Shell access knowledge and expertise drawn from across the £800 million (USD 1.3 billion) portfolio of EPSRC-funded activities in UK universities.

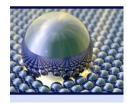
Full article available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/shellsigns.aspx

30.6 The UK Publishes the Research Performance and Economic Impact Report (April 2014)

In 2012/13, the Engineering and Physical Sciences Research Council (EPSRC) continued to invest in world-leading research and training to fuel long-term growth through active sponsorship of its £3.3 billion* (USD 5.4 billion) portfolio of research and training, including areas of research aligned to the UK Government's Industrial Strategy. Over 50 per cent of our research portfolio is collaborative with users

EPSRC

Research Performance and Economic Impact Report 2012 - 2013



providing an additional investment of £555 million (USD 914 million) from industry, government departments, public sector organizations, independent research organizations and charities.

The EPSRC Research Performance and Economic Impact Report incorporates highlights from the year including an £85 million (USD 140 million) capital equipment investment for robotics and autonomous systems, advanced materials and energy storage technologies to drive UK growth; a unique five-year collaboration with Jaguar Land Rover to develop the capability of the virtual simulation industry in the UK; and an innovative heart rate monitor, resulting from blue-skies research, demonstrated by leading semiconductor company Plessey.

*Note: The EPSRC's budget for 2014-2015 is £780 million (USD 1.3 billion). The portfolio value corresponds to the total value of awards in at given moment in time and includes multi-annual awards.

More information available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/impactreport2013.aspx

30.7 UK Announces 22 New Centers for Doctoral Training (April 2014)



Postgraduate training in a wide range of engineering and scientific fields important to the UK's economy received a further boost today. Twenty two new Centers for Doctoral Training (CDTs) were announced by the Chancellor of the Exchequer, The Rt. Hon George Osborne. Mr Osborne made the announcement during a visit to the University of Manchester, which has been successful in securing funding for one of

Chancellor George Osborne with dignitaries at the Graphene Institute at the University of Manchester

the new Centers. The new CDTs come on top of the 91 Centers previously announced by the Engineering and Physical Sciences Research Council (EPSRC) in November 2013 and January 2014. The Engineering and Physical Sciences Research Council (EPSRC) and other research councils

have been able to fund these new Centers following a £106 million (USD 176 million) investment announced in the Budget, and by negotiating with universities, industrial partners and the Scottish Funding Council, to maximize the number of centers and the students they will be supporting.

This latest Government investment in a further 1,100 students through an additional 22 Centers for Doctoral Training (CDTs), brings the total investment in CDTs to over £500 million (USD 831 million). In addition, universities, industry and other charitable partners will be adding a further £70 million to their already large contribution of £374 million (USD 622 million) to support the training of tomorrow's scientists and engineers. The combined public and private investment amounts to over £950 million (1580 million).

Note: Centers for Doctoral Training (CDTs) are one of the three main ways by which the EPSRC provides support for doctoral training. The other routes are the Doctoral Training Grant and Industrial Case Studentships. EPSRC-funded centres bring together diverse areas of expertise to train engineers and scientists with the skills, knowledge and confidence to tackle today's evolving issues, and future challenges. Students are funded for four years and include technical and transferrable skills training, as well as a research element. Many Centers leverage additional studentships from other sources.

Full Article available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/newcdts.aspx

30.8 Triennial Review of the UK Research Councils Published (April 2014)



The UK Department for Business, Innovation and Skills (BIS) has published the findings of the Triennial Review of the Research Councils. The review, which examined the form, function and governance of the UK's seven Research Councils, has recognized that they are working from a position of strength. The review has also confirmed that the current number and structure of the seven Research Councils is right.

Professor Rick Rylance, Chair of Research Councils UK Executive Group, commented: "We welcome the findings of the Triennial Review. It highlights the value that the Research Councils bring not just to the

extraordinarily high quality of UK research but also its contribution to growth, prosperity and wellbeing. We are pleased that the Review recognises that our current structure supports the delivery of these."

More information available at: http://www.rcuk.ac.uk/media/news/140416/

30.9 UK Minister Announces Further Investment in Doctoral Training (April 2014)



Postgraduate training in the UK's universities is to receive another injection of funding from The Engineering and Physical Sciences Research Council (EPSRC). This year EPSRC is investing £83.5 million (USD 140 million) through its Doctoral Training Partnerships (DTPs). The DTP includes £10 million for Doctoral Prizes (USD 17 million) and £1 million (USD 1.7 million) for Vacation Bursaries. The

announcement comes shortly after the Chancellor's announcement of extra investment in 22 Centers for Doctoral Training.

The DTPs are awarded to universities for the provision of postgraduate study and are allocated each year on the basis of EPSRC research grant income. The grants allow institutions to be flexible in terms of student recruitment and retention, and enable them to vary the length of support (between three and four years) dependent on the project. This year 38 universities will benefit from the Doctoral Training Partnership funding, which ranges from £300,000 to nearly £8 million. The flexibility of the DTP allows universities to leverage funds, for example from industry, and potentially support higher numbers of students.

More information available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/phdtraining.aspx

30.10 UK Lords Blame Immigration Policy for Drop in STEM Foreign Students (April 2014)

Numbers of international students seeking to study key subjects at universities in the United Kingdom are



dropping because tighter immigration rules are creating an "unwelcoming" impression, an influential House of Lords committee says in a just-published report. The science and technology committee report calls on the UK government to rethink its immigration policy, which it says is "contradictory". And it warns that the decline is putting university courses of vital importance to the UK – the STEM subjects of science, technology, engineering and maths – under threat. International students on STEM courses fell from 58,815 in 2010-11 to 52,905 in 2012-13, a drop of more than 10%. In particular, the number of Indian students on STEM courses fell by 38%

in 2011-12 and a further 28% in 2012-13. The decline is particularly acute among students on postgraduate taught courses in STEM subjects – the number of new students fell by 13% in 2010-11 and a further 3% the following year.

Full article available at: http://www.universityworldnews.com/article.php?story=20140410182334514

30.11 More UK students consider study abroad, but US numbers drop (May 2014)

The number of British students considering study overseas has increased by 17% in a year to more than one in three, a report by Education Intelligence, the British Council's higher education research division, has found.

A survey of 2,630 UK students found that 37% were considering overseas study, compared with 20% in March 2013.

But when 4,680 United States students were questioned for the same study, it was found that the number wanting to study abroad had decreased to 44% from 56% in 2013.

The report, Broadening Horizons 2014: Embedding a culture of overseas study, was released recently ahead of the British Council's major "Going Global" conference in Miami at the end of April, and aims to provide insight into how UK and US student demand for overseas study is changing.

Full article available at: http://www.universityworldnews.com/article.php?story=20140422200915221

30.12 Britain to Build \$340 Million Polar Research Ship (May 2014)



British Antarctic Survey Ship shape. Artist's rendition of the United Kingdom's planned polar research ship

In another headline-grabbing announcement of new research infrastructure spending, U.K. Chancellor of the Exchequer George Osborne <u>announced</u> today that Britain would build a new £200 million (\$340 million) polar research ship by 2019. The new ship, as yet unnamed, will allow researchers to travel deeper into the Arctic and Antarctic, deploy robotic submarines and underwater gliders, and have extensive onboard laboratories. It will also service bases in the British Antarctic Territory.

Full article available at: http://news.sciencemag.org/europe/2014/04/britain-build-340-million-polar-research-ship

30.13 £375 million (\$632.7 million) for United Kingdom's research and innovation collaboration with Emerging Powers (May 2014)



The UK Government announced £75 million (\$126.6 million) of UK funding per year for five years to promote research capacity building in emerging economies in the Autumn Statement in December. The detailed plans are still being developed with the view that the fund will start in the 2014/15 financial year. The UK Higher Education International Unit (IU) welcomed this major investment in internationalization as a strong signal to key emerging economies that the UK is eager to build partnerships, and a significant opportunity for the UK higher education

sector. It is particularly important that this is a new investment, in addition to the ring-fenced science and research budget.

Full article available at: http://www.international.ac.uk/newsletters/international-focus-99/articles/%C2%A3375-million-for-research-and-innovation-collaboration-with-emerging-powers.aspx

30.14 United Kingdom's EPSRC anniversary celebrates 20 years of scientific innovation (May 2014)



Twenty years ago no one had invented graphene, regenerative medicine was a mere possibility and the internet was in its infancy.

Research Council 1994 was the year that the Engineering and Physical Sciences Research Council (EPSRC) was formed to sponsor research and training, focusing on the engineering and physical sciences. It was created after a government review of research funding concluded that the Science and Engineering Research Council (SERC) should be split into discipline-specific Councils.

EPSRC invests its current annual budget of £800 million into a range of subjects – from math to materials science and from information technology to structural engineering. To celebrate the world-leading research, people and innovations that EPSRC has supported over the last 20 years, the Council are organizing a range of activities to take place throughout 2014.

Full article available at: http://www.epsrc.ac.uk/newsevents/news/2014/Pages/20yearsofinnovation.aspx

30.15 Women and minorities still face uphill struggle in UK science (May 2014)



Even with the government's attempts to increase the representation of women, ethnic minorities and people with disabilities in science and mathematics, progress in the United Kingdom has remained too slow, according to a report published today by a UK non-profit organization.

Full article available at:

http://www.nature.com/news/women-and-minorities-still-face-uphill-struggle-in-uk-science-1.15177

30.16 Part-time student numbers tumble in England (June 2014)

A third of students at English universities study part-time, but numbers are falling and the decline accelerated between 2011 and 2013 – to the alarm of policy-makers who fear the downward spiral could harm the economic recovery.

Ten years ago, 47% of all entrants to higher education in England were on part-time courses. Today, that figure is down to 31%, with the biggest fall in undergraduate courses.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140523125614333

30.17 Only 17% of UK universities are run by women – Why? (June 2014)

Women now form 56.5% of the student body, make up 53.8% of the whole workforce and occupy 45% of academic jobs in higher education in the United Kingdom. But their representation declines dramatically at senior management levels, where only 27.5% of managers are women. In vice-chancellor and principal roles, this is even lower: only 17% are women, or 29 out of 166 in 2013-14.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140605164410589

30.18 Loans to foreign students blocked (July 2014)



Large numbers of students from mainland Europe face being blocked from taking out loans at British taxpayers' expense after it emerged that thousands of Bulgarians and Romanians attempted to wrongly claim more than £65 million (US\$110 million) of public money.

A study last year found that around 40 per cent of the total number of EU students who are eligible for repayments are failing to do so Photo: ROB JUDGES Ministers have pledged "stringent new measures" to prevent students from European Union member states claiming financial support in Britain amid fears over widespread abuse of the system.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140619211641116

30.19 An uncertain future for Scottish research (July 2014)



Both sides in the Scottish independence debate stepped up their campaigns last week as they marked the milestone of 100 days to go until the referendum. A 'yes' vote on September 18 could have major effects on Scottish universities: financially, for research and for teaching.

If an independent Scotland were to become a member of the European Union – a probability – Scotland's universities would no longer be able to charge rest-of-UK students tuition fees. But the major area in which independence would have a profound effect is research. First, there is the risk of scholars in an independent Scotland losing access to funding from Research Councils UK (RCUK); second, there is the possibility of Scottish government interference.

Scottish universities currently win 13% of RCUK funding, noteworthy in a country with a population that is 8.4% of the UK's.

Source:

http://www.universityworldnews.com/article.php?story=20140612205058484

30.20 Record numbers win university places (September 2014)

The proportion of students in the United Kingdom passing A-levels* dropped for the first time in three decades following the former education secretary's clampdown on exam results. But the results triggered record numbers being accepted to university.

Results were also affected because tougher subjects flourished while others, such as general studies, have declined in popularity. The admissions service UCAS said that the total number to start this year was likely to top 500,000 for the first time.

Full article available at:

http://www.universityworldnews.com/article.php?story=2014082209413973

*The General Certificate of Education Advanced Level (short form: GCE Advanced Level), or more commonly, the A-Level, is a school leaving qualification offered by educational bodies in the United Kingdom to students completing secondary or pre-university education.

30.21 Universities attract more students from EU countries (September 2014)

So far, 4,070 students from across the European Union have been accepted to study in Scotland, an increase of 10% compared to the same time last year.

The rise is important because EU students compete for the same places as Scots and the estimated £80 million cost of educating them is the responsibility of the Scottish taxpayer. However, the figures from the Universities and Colleges Admissions Service show no signs that Scots are being pushed out, with record numbers already accepted.

Full article available at:

http://www.universityworldnews.com/article.php?story=20140822094051831

31 Western Balkans



31.1 Western Balkan Countries Develop Joint Strategies for Innovation (March 2014)

The Western Balkans Regional Research and Development (R&D) Strategy for Innovation was adopted last December in Zagreb, Croatia, by the ministers of science from the region during the ministerial meeting on regional R&D. Research and innovation are at the heart of the European Union's (EU) strategy for growth and jobs – the Europe 2020 Strategy – as they are important drivers of economic growth, and contributors to raising productivity and creating employment opportunities. This

focus on research and innovation has been recognized by the countries of the Western Balkans as they work to find ways towards economic recovery. For the first time, to jointly improve the quality of research and innovation, Albania, Bosnia and Herzegovina, Croatia, Kosovo, The Former Yugoslav Republic of Macedonia, Montenegro, and Serbia collaborated to develop a Western Balkans Regional Research and Development (R&D) Strategy for Innovation. This document will serve as a framework for a collective effort to recommend policy and institutional reforms, and promote the Western Balkans' most urgent priority of increasing innovation, economic growth, and prosperity.

The work on the Strategy was supported by the World Bank and the European Commission, and was financed through a Multi-beneficiary Instrument for Pre-accession Assistance (IPA). The European Commission and the Regional Cooperation Council oversaw the implementation of the project.

More information is available at: http://www.rcc.int/press/0/226/western-balkan-countries-develop-joint-strategy-for-innovation-based-economic-growth

Document available at:

http://www.worldbank.org/content/dam/Worldbank/document/eca/WBRIS%20Strategy10-21-13%20web.pdf

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